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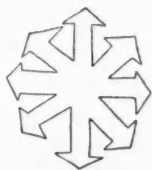
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Business correspondence should be addressed to the University of Chicago Press.

Editorial correspondence should be addressed to Roger Caillois, Editor, International Council for Philosophy and Humanistic Studies, 19 Avenue Kléber, Paris 16^e, France.

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THE KING, THE TRAITOR, AND
THE CROSS: AN INTERPRETATION
OF A HIGHLAND MAYA RELIGIOUS
CONFLICT¹

Holy Wednesday, 1953, was a great day for Santiago, a village of the Highland Maya Indians in the Central American Republic of Guatemala. On the church porch, strung up on a post decorated with lush tropical leaves, hung a four-foot puppet clothed in Indian costume with a large sombrero and a wooden mask, into whose mouth a long cigar had been planted by his worshipers. This, I had learned, was Judas Iscariot—but a strange Judas it was, for, instead of being burned, stoned, or otherwise reviled and derided as is usually the case with village Judas figures, it was cared for by Indian priests constantly on guard, presented with gifts of fruit, candles, and incense, and altogether made far more fuss of than the saint whose fiesta this bright Eastern week should have been: Jesucristo, the Mayanized Christ. The thousand bananas and hundreds of cocoa beans

1. A short, earlier version of this text was broadcast in 1957 by the B.B.C. Third Programme, the B.B.C. French Service, and the Servizio Nazionale di Roma.

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and other tropical fruit, for instance, which the young Indian municipal officials had gathered in a three-day trek toward the Pacific coast, had been presented to the puppet before being hung up among the gilded wooden columns of the main altar inside the church.

For three long years a battle had been waged between a small group of young men led by the non-resident Catholic priest, who had attacked the Judas worship on the grounds of idolatry, and the large majority of traditionally minded people who had brought back the cult after a series of subtle encounters involving the whole political and religious life of the village. The details of this conflict would themselves require a whole article. Now, however, the president of the republic had himself authorized the cult. There was much quiet rejoicing, and the native priests walked about with knowing airs and prodigious dignity. What had been the meaning of this conflict, and how had it come about that the traitor to Jesucristo was held in such honor among the men of Santiago?

Santiago is situated in the mountainous region lying between the great plantation lands of the Atlantic and Pacific coasts. While the Atlantic coast witnessed the rise of the great classical culture of Lowland Maya, the Highlands—crossroads of the economic life of the country since very early times—now shelter the majority of the Indian population of Guatemala. These people, themselves heirs to an old culture not long ago revealed in Kaminaljuyu or Zaculeu, share with Mexican Yucatán the inheritance of a great civilization conquered by Spain some four hundred years ago. The Highland provinces now include hundreds of conservative villages, linked one to another by scarcely more than a system of markets, to and from which Indians travel, bearing agricultural and domestic goods. Life here has maintained a basic peasant or folk pattern for two or three thousand years in spite of imperial superstructures built up at various times, first by local aristocracies, later by Mexican and Spanish invaders. These have yielded now to the Guatemalan Republic, but there is a whole world of social distance between the capital and the villages. Each village shares in an over-all regional culture, but it also enjoys much autonomy and has its own costume and its own economic, political, and religious variations on the basic theme. Because of the general sameness of the culture, because of the frequent (hence incurious) and rather impersonal contact during travel, and because of an over-all tacit acceptance of cultural differences within one broad pattern, the small distinctions that do exist between villages tend to be accepted without question. Men of Santiago “are not like” men of San Juan or San Sebastian, Indians “are not like” Ladinos and

foreigners, so that one man's meat is another man's poison, and some can do with impunity what others will find detrimental to their health or well-being. Local feeling goes even further: a man of Santiago will not grow a vegetable or a fruit produced by a man of San Pablo or San Lucas, not because methods of cultivation or soil quality differ, but because, quasi-mystically, the plant or the fruit belongs to the other villages and not to his own. Curiously enough, then, these villages are so near being identical that they do not wish for identity. This, in a sense, does protect the traditional market economy; it is a barrier to change. It also reveals something about the Indian world view, the villager's way of looking at the world he lives in: individual and cultural differences are part of a larger order, and their acceptance is essential to the continued well-being of human and non-human phenomena alike.²

It is, I think, the *campanalismo* inherent in this world view which gives us the most important reasons for that basic resistance to change which anthropologists have noted in Guatemala and which recent governments have found it difficult to break down. But the causes of this *campanalismo* appear to be deeply imbedded, not so much in religion, as in the whole system of beliefs concerning the organization of the natural, social, and paranatural or parasocial aspects of the universe, which finds a privileged expression in the myths, rituals, and symbols of the religious life. The study of a religious conflict may thus help us to explain the basic causes of resistance to change in the shape of new techniques and ideas emanating from the cities. But, before considering this possibility, we must note an important difference between the Indian's point of view and that of the observer. The latter knows that the present religion of Santiago is the product of a blend or mixture of ancient Mayan ideas with those of a simple rural form of Catholicism which could well be called "Folk Catholicism." One difficulty is that these two systems have influenced each other to such an extent that neither is as "pure" as it was at the moment of Conquest, and it is easy to mistake an item of belief or behavior as belonging to one system when it might well have originated in the other. The Indian, on the other hand, does not remember this blending process as such; for him his present Catholicism is the true religion—to such an extent, indeed, that the Catholic priests who fought the Judas were dismissed as "Protestants"—and he is totally unconcerned with dissecting

2. For a trial summary of the whole history of politico-religious organization in the Highlands see E. M. Mendelson, "Les Maya des Hautes Terres," *Critique* (Paris), No. 115, December, 1956.

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his beliefs according to analytical methods which remain foreign to his mentality. Thus the observer's problem lies in harmonizing his own attitude to a religion seen from the outside without underestimating or leaving out of account the essential unity of the true believer's attitude toward his own creed.

In Indian thinking the whole world is fragmented, divided up into classes of things and people and placed under the protection of various powers who own the diverse aspects of nature. Each man, to begin with, is born with an immutable fate, a *suerte*, which determines his character, his profession, and his degree of, or capacity for, social success in this *Santo Mundo*, this "Holy World," basis of all life, matrix of all phenomena, past, present, and future, of this universe. *Suerte* is an atomistic notion, one which scarcely heeds, or, at any rate, does not stress, the moral problems of social contacts with other persons. If it encourages a peaceful and tolerant attitude toward life (for, since one cannot help being what he is, how should he be blamed for so being?) it also discourages any feelings of responsibility for the other person and for one's neighbor and, indirectly, any concerted efforts at bettering society. Each aspect of nature, moreover, has a *dueño*, a supernatural master, who regulates its progress and its role in that yearly game of life and death waged in the milpa fields between the sowing and the harvesting of Indian corn. These *dueños* are usually ambivalent sexually (they may be male and female at the same time—an ancient Maya idea) and ethically ambiguous (there is no means of knowing whether they are essentially good or bad). Man, then, cannot know the essence of the *dueños*, but only their existential manifestations for or against the fertility and regular healthy growth of plants, animals, and children. All he can do is to pray, regularly and accurately, according to an ancient system which does not and "must not" change (*costumbre* signifies both ritual and custom) and hope for the right exchange from the *dueños*. The Indian love of order, it is worth noting, is extended to the realm of speech, and the *suerte* of a native prayermaker includes the ability to mediate between men and *dueños* with accurate prayers, just as some old men mediate between parties to a marriage contract and as midwives mediate between women and the *dueñas* of childbirth. But love of accuracy does not necessarily yield accuracy. Indeed, the more a culture has been wounded by conquest and the more it forgets old customs, the more there would seem to be insistence on "accuracy," even in ignorance, and the more following *costumbre* becomes itself *costumbre*.

Since the Catholic priest rarely goes to the village, and only then for

Mass or baptism, the population relies on native priests, who combine the functions of prayermakers, healers, and fortune-tellers for the legitimate yearly round of individual and communal *dueño* ritual. Thus they pray to *dueños* of wind, cloud, river, lake, hill, volcano, rain, corn, wild and domestic animals, and, above all, to the chief *dueño*, the *San Martin*. This is a bundle wrapped in velvet and containing sacred objects. Under the orthodox Catholic saint's name it hides an ancient Mayan earth divinity which has survived four centuries of acculturation to Ibero-Catholic culture and may well be one of the oldest ethnographical objects as yet discovered in the area. As I hope to show elsewhere, there is some evidence of its rain-bringing ritual deriving from the ancient worship of the flayed god Xipe Totec.³

I soon found that there were three major *dueños* in Santiago: the *San Martin*, who is called the most ancient of all and frequently referred to as *el Rey*, "the King"; another idol which spends most of its time dismembered and wrapped in a bundle on the ceiling trellis of a chapel (*cofradia*) and is called the *Maximon*—both of these have their own special native priests—and Jesucristo, that is, the Christ Mayanized as *dueño* of the Divine Justice and the ritual of Holy Week. If the *San Martin* can be accepted as a symbol of the closest available approximation to a system of ancient Mayan ideas under the name of "the King," and if Jesucristo (passing over the Maya cult of the cross of the four directions) can stand for the new religion symbolized by the Cross, the *Maximon* would appear to belong to the two religions, since he is credited with various personalities, some belonging to one, some to the other. While he is sometimes known as St. Andrew, St. Michael, or St. Peter, not to speak of Pedro de Alvarado, *Conquistador* of Guatemala, he is also known by the name of *Mam*, "the Old God," which, according to Bishop Landa and other sources, the ancient Maya worshiped on the five last days of the pre-Columbian calendar year.⁴ Another Christian alias adds itself to these, for during Holy Week the objects within the *Maximon* bundle are brought out and clothed in Indian costume to form none other than the puppet strung up in the church patio as Judas Iscariot.

This *Maximon*, who is father of the prayermakers and *dueño* of madness

3. See E. M. Mendelson, "Religion and World-View in a Guatemalan Village" ("Microfilm Collection of Manuscripts on Middle American Cultural Anthropology," No. 52 [Chicago: University of Chicago Libraries, 1957]), p. 477. A short version of this thesis is ready for publication.

4. See A. M. Tozzer, *Landa's Relación de las Cosas de Yucatán* ("Peabody Museum Publications," Vol. XVIII [Cambridge, Mass., 1941]), p. 139, n. 646.

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and some other things which we shall discuss, is not an easy figure to analyze. Bearing in mind his treachery to the Indians as Alvarado and his treachery to Christ as Judas, and also, incidentally, as St. Peter, I am here labeling him "the Traitor." What can we make of this enigmatic figure that appears to represent at one and the same time the ideas which have bound two religions together for more than four centuries, as well as those which have made the partnership so uneasy?

Let us first look at those aspects on which the two religions have been able to agree. Regarding ideas about nature, Maya paganism and Christianity have been able to live together through the device of ascribing to patron saints (*santos*) those realms of ownership previously ruled by *dueños*. Thus, when a statue of St. Peter is seen to include a rooster, the saint becomes the *dueño* of farmyard fowl, or a St. John carrying a lamb may become *dueño* of animals. The processions which come and go between the *cofradías* of the *santos* and the church which serves as the headquarters of the *cofradías* echo similar processions among the ancients, where the idols, emerging from their caves in the surrounding hills, visited the central temple from time to time. Indeed, the origin of the *cofradías* can be traced to old sodalities responsible for Indian fiestas, or *guachibales*, as they were known in colonial times.⁵

What about ideas of time or of history? Here it seems that a historical coincidence has linked the two religions in an equally satisfactory manner. There is an old Mayan legend—fully extant today, it appears, only in the Huasteca region of Mexico—which tells the story of the year's agricultural cycle in a theomorphic fashion.⁶ The young "godlings" of nature are born and grow up, travelling about like the winds and the clouds until they unite in the depths of caves with their females, producing lightning and the life-giving rain. It is said that they emerge from this union somehow punished—old gods who like to rest on certain plants, have high-pitched voices, and bring illnesses (the Santiago *Maximon* is said to do this) and then die, to be reborn later, when the cycle recommences. These gods when young, as we can tell from several myth fragments of Santiago, are not unlike the subordinate *dueños* ruled over by the *San Martín*, a mixed host of nature spirits who, in modern terminology, have become "angels." (We note in passing that, while Stresser-Pean calls his godlings "divinized

5. See Mendelson, "Les Maya des Hautes Terres," *op. cit.*, p. 1085.

6. See Guy Stresser-Pean, "Montagnes calcaires et sources vauclusiennes dans la religion des Indiens Hautesèques de la région de Tampico," *Revue de l'histoire des religions* (Paris), Vol. CXLI, No. 1 (January-March, 1952).

ancestors," many of the *San Martin* angels are prayermakers who died some fifty years ago.) In many other Guatemalan places they are called *Mam* (plural *Mames*). Now, previous scholars have found no connection between these *Mames* and the *Mam* of the five last days of the year.⁷ When one reads the sources, however, and finds that this five-day *Mam* grew older as each day of the old year passed and was then considered as dead and abandoned, presumably to be reborn in the new year, it looks as though the ancient Maya were representing the yearly cycle of nature as a crisis and as though this big ceremony, involving some chief or head *Mam*, were nothing but a summary of a longer process. True, the sources do not speak of rejuvenation in the case of the five-day *Mam*; but it is difficult to believe that there was no link or even identity between the *Mam* of one year and the *Mam* of the next. If the hypothesis is correct, we would have a historical link between the Santiago *San Martin*, with his angels or *Mames*, and the *Maximon*, also known as *rilaj atcha*, "the old man." This summary, enacted in a moment of crisis between the end of one year and the birth of the next, suggests an additional merger. The sources, indeed, provide reasons for thinking that, at some point in history, the *Mam* summary was fitted by the Santiago people into another crisis: that of the death and rebirth of the new God, Jesucristo.⁸ Thus not only does our data bring closer together the *Maximon* and the *San Martin*—the former being, as it were, the "old age" of the latter—but we are also nearer to an explanation of our original question about the honor in which Judas is held in Santiago. The *Mam* can be adored at the same time as the Christ, because a cyclical system, in adapting itself to a crisis system, has been able to merge two "critical" rituals, thus inserting, without destroying, itself at the heart of divine intervention into the human world. The price paid

7. See J. E. S. Thompson, *Ethnology of the Mayas of Southern and Central British Honduras* ("Anthropology Series," Vol. XVII, No. 2 [Chicago: Field Museum of Natural History, 1930]), p. 60. Since then (*Maya Hieroglyphic Writing* [Washington, D.C.: Carnegie Institution of Washington, 1950], p. 133) the author has changed his mind and accepted a connection. While we can, then, probably discount Highland-Lowland differences (see also Stresser-Pean. *op. cit.*, pp. 88–89), the problem of why different myth fragments remain in different Highland villages is worth pursuing. Has it anything to do with the low degree of communication between the villages mentioned earlier?

8. See Mendelson, "Religion and World-View in a Guatemalan Village," *op. cit.*, pp. 472 and 478–81. Thompson (*Maya Hieroglyphic Writing*, p. 133) tells us that the Kekchi of Alta Verapaz, while no longer retaining their old calendar, now situate the five days in the Easter period and bury a *Mam* during those days. The Kekchi and Pokomchi *Mam* is said to live under the earth, where he lies bound. Santiago informants, however, rejected Lothrop's translation of the *Maximon* as "the great lord (or grandfather) who is bound" ("Further Notes on Indian Ceremonies in Guatemala," *Indian Notes* [New York: Heye Foundation], VI, No. 1 [1929], 20), giving instead *Mam-Shimon* (Simon). The word for "bound" is *shmon*.

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for survival by the old system is the branding of the *Mam* as "Judas the Traitor." Needless to say, Folk Catholicism has always and everywhere involved cyclical as well as crisis ritual; earlier remarks on the adaptation of Indian to Catholic fiestas have already underlined this point.

But where can disagreement have entered? I think that it is in the realm of ideas about the human personality, about the self and its ethical relations to others, that the two religions failed to see eye to eye. We have already spoken of the asocial nature of the notion of *suerte* and have pointed out that the world of the King includes no ultimate judgments of a moral or ethical nature about the *dueños*; one can only hope that these "guardians" will be good to plants, animals, and children, but there is nothing like a good god here, a god of love. Indians, for instance, are full of notions about irrevocably bad deaths (the drowned among others automatically become bad ghosts, dragging down the drowning) and are troubled when one points out that Jesucristo of the Divine Justice would not damn a man merely for falling in the lake. Here the passive determinism of *suerte* overrules any possibility of salvation by good behavior. In a similar context, but in the active voice, Robert Redfield has written of the discovery of an essentially Protestant ethic among the Catholic Maya of Yucatán.⁹ But perhaps we can take as our main example the simplest relationship of self to other, the sexual relationship, a one-to-one affair which usually includes most moral issues relevant to a society. Sex, to the Indian, is a *delicado*, "a delicate matter," full of dangers, open to magic and supernatural interferences. It would appear from our little story about the *Mames* who were somehow punished by becoming old that some kind of sanction against disorderly sexual indulgence existed early in Indian thinking. But this disorderly conduct, belonging to a cyclical system, only seems to endanger the order of nature and its mirror, the social order, for its outcome is a fertilization of the earth, which is a good thing, and nips in the bud any emergent notion of sin.¹⁰ The world of the Cross, however, takes a clear-cut stand on sexual sin, and fertility is here subordinated to the basic problem of man's fall and subsequent salvation. Here we have

9. See Robert Redfield, *The Little Community* (Chicago: University of Chicago Press, 1955), p. 68.

10. See Mendelson, "Religion and World-View . . .," *op. cit.*, p. 460, for a Santiago story in which an angel who has overindulged in sex is punished, while climbing a tree for fruit, by a flying snake that tries to strangle him. A passing merchant kills both snake and angel with the latter's "angelic gun," whose shot is the original lightning and provokes a storm and flood. Is there here an echo of the Genesis tree? Stresser-Péan writes (*op. cit.*, p. 86) of a Huasteca godling getting stuck in a split tree. Normally, the godling's weapon, a prehistoric stone or metal tool, is found near a tree split by lightning.

two different attitudes toward one problem and two different answers, leading us to expect conflict symptoms in the blended, present-day system of Santiago.

But what, you may be saying, has all this to do with our three major *dueños* or, more specifically, with our pivotal *Maximon*? Among his various *duenoships*, there is one that we have not yet examined—his dominion over sexual affairs and love magic. And in the Santiago legend of his origin we find that the village ancestors created the puppet in the first place to save a sexual order endangered by frequent adultery among the early inhabitants of Santiago: the *Maximon* was set up as guardian of morals in the land. The idol, once created, however, seems to have run away with his powers and, by becoming man or woman, not only frightened adulterers by taking on the appearance of the beloved and then revealing himself and driving them mad but also began to unite indiscriminately with youths and maidens, becoming the major contributor in breaking the order which he had been created to preserve! An excellent legend of origin for the dismembered state in which the *Maximon* today spends most of his time, but how revealing as well for the study we are making of conflict within a mixed system of beliefs! Thus the *Maximon* with, on the one hand, the prostitute wife he is said to live with and the thinly disguised fertility ritual aspects of his participation in Holy Week and, on the other hand, with the terrible sanctions of illness and madness which he still is said to wield against sexual offenders embodies both the similar problems and the different solutions of the two religions in an almost incredibly self-contradictory manifestation of religious symbolism. Lord of that primal relationship between self and other, the sexual relationship, he seems to stand for all the unresolved questions about the moral nature of men and gods with which a blended religion confronts the modern inhabitant of Santiago. Vortex of a cyclical conception of history and the ultimately progressive vision which is the hallmark of Ibero-Catholic culture, the *Maximon* appears to hypnotize the people and to consume the energies which could be channeled into more profitable endeavors. In many ways paganism and Christianity could not have remained united without him or his like, since he voices both their anxieties; with him they are destined to remain unsatisfactorily united in the discordant tones of their different responses. In the same way as a psychological complex may block the development of a human personality, it may be that we have here a cultural complex of a highly treacherous nature which "blocks" the evolution of Santiago's culture, preventing change at the same moment that it per-

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petually calls for it through the conflict which its ambiguity occasions.

The Conquest, then, was only the first step in the long process of acculturation which Santiago has faced and still faces. We shall see in a moment why it is not easy to follow the usual anthropological procedure of relating religious behavior to specific social groups. New ways must be devised for dealing with conflict in terms of symbols in order to get at the complex and deeply imbedded causes of a very old battle whose traces are more and more difficult to locate. The King, the Traitor, and the Cross survive simultaneously, and it is no easy matter to tell them apart, let alone to reshuffle them with any view to smoothing the path of social change. One authority has suggested that pre-Columbian Indians had already evolved patterns of social relations very similar to those which the Spaniards brought with them. He has held that, insofar as we Europeans imposed upon Indians our world view alone, and not our pattern of social relations, change has been both healthier and less rapid; we have avoided a breakdown of all aspects of native culture.¹¹ While this is so in the main, we must be careful not to overestimate the extent to which our world view has in fact been imposed. Both in beliefs and in ritual the old world of the King is still strong, and it is to that which is still "royal" in the demeanor of the Traitor that the fruits of Holy Wednesday were first offered in Santiago.

11. See Sol Tax, "World-View and Social Relations in Guatemala," *American Anthropologist*, Vol. XLIII, No. 1 (New ser., 1941).

HISTORY AND OUR TIMES

INTRODUCTION

Is history at present in a position to sustain the dialogue of our times? Is it not rather, like an album of faded pictures, a curiously anachronistic story for a century infatuated with progress, speed, and productivity?

It is true that the pursuit of historical research is always in evidence and that an interested public still exists for it. More significant perhaps is the historical sensitivity which our epoch attests. This same twentieth century, to which discoveries and innovations of all kinds appeal, likes reconstitutions, encourages prehistorical exhumations, and sees to the accurate restoration and preservation of monuments. Careless restoration would not be countenanced today, nor would the demolitions of the nineteenth century, when, because of a lack of feeling for history, too many precious relics were squandered. This piety does not emanate solely from the aesthetic order. What readily comes to light, emerging from this rubble and its picturesque quality, is the atmosphere of early days, the conditions and even the "states of mind" of men of long ago, as if we still were expecting something from that voice that rises out of the centuries.

This feeling for the past is accompanied by a devaluation of historical science. The nineteenth century was the century of history *par excellence* because of the high quality of the historians, because of the repercussions

Translated by Elaine P. Halperin.

History and Our Times

of archeological "discoveries," and because of the fervor blended with romanticism with which this encounter with "history" was welcomed. Michelet, Quinet and Renan, Niebuhr, and Ranke were more than mere technicians of history, more than masters of narration or exposition. With them history became the ultimate expression of humanism. For them it was a faith, the revelation of a human order in time. In doing the work of historians, they were working for the improvement of man, for the advent of justice and liberty. The budding twentieth century felt itself borne away by progress toward sunnier climes where peace, abundance, and happiness would mark the end of history.

Since then the event has descended upon us. This euphoria was not proof against two wars of planetary dimensions or against the malevolence, inscribed in flesh, by death camps or scientific massacres. Rather, the entire course of history turns crimson with a sinister glimmer; its realism, suddenly unmasked, presents to our eyes misfortunes, failures, infamies during the course of the centuries, on which greatness or reason sheds but a fugitive light.

In the resentment of a disillusioned era (history is being brought to trial in our times—Spengler or Valéry, Guéhenno, Gide or Sartre) the forms of the accusation vary, but everywhere history is called into question or depreciated. It appears as a relentless power against man, as an awesome evil genius. Many of our contemporaries have come to doubt that history has a meaning.

Although we reject the optimism of earlier days, we do not do so in order to wallow in a pessimism of principle. With the exception of concrete situations which call for pessimism, a sorry disillusion sterilizes that "pessimism of weaklings" denounced by Nietzsche. A "pessimism of strong men" knows itself to be provisional. It sets aside old values, established truths, and false securities, but only to await the truth of new values. We reject the official optimism of yesterday in favor of the myopia of its messianism of peace and happiness. Philosophies of history, despite the caution of Hegel or Marx, inspire us with distrust, because they falsify the historical perspective by setting up as a definitive truth the "views" of a moment. Yet one cannot dismiss all philosophy in order to fall back upon a ready-made artlessness. Let us merely hope that thought will become critical enough to save us from false absolutes and to preserve all the richness of historical reality. In denying that the course of history paves the way for the advent of the ideal city so dear to Marxist dogma, we do not, however, resign ourselves to the absurd and the chaotic. But, in forsaking

those flowered paths where our illusions lay dreaming, we enter a universe where we must fight for justice, agitate for peace, defend liberty. These do not represent indestructible "boons." They must be won over again and again and protected at every moment. In taking cognizance of this internal exigency, history, emancipated from false ideologies, once again discovers something to say to our times. For every existence derives from history guideposts that help it to ascertain its position in the world and experiences that equip it to meet the challenge of future battles.

HISTORY AND THE PAST

We are all more ancient than ourselves—history reminds us of this each day. We are surrounded by, and we come across in ourselves, a reality which we have not created but which stems from past centuries and presents obstacles or opens up new ways to us. That which is no more still remains present in one form or another, and we are obliged to take it into account. However, the positivist epoch has falsified the perspectives of this relationship with our past.

The years we have just lived through have freed us from the superstition of objectivity. We ourselves are in history. It is what happens to us and our reaction to events; it is what we do with our life. History is ourselves. Outside of time and history, no one can gain access to a bay window whence he could, without risk or emotion, survey the course of events, score the points, and referee the match. To write history is also to realize its existence, to "historicize one's self."

The "presence" of the historian in the history he writes, inevitable as it is, is also the condition and the guaranty of a truthful history. His knowledge and his intellectual qualities are not enough. His moral worth, his probity, his breadth of vision, the intensity of his search, as broad an understanding as possible—all this, by guiding his "subjectivity," insures the validity of his work, his "objectivity." The best way of exorcising subjectivity wherever it might degenerate into arbitrariness or fantasy, the only true opposition to subjectivism, is not to deny its role in a work of science but to be aware of it.

It is said that history is the "science of the past." But the error of this commonplace is precisely that it overlooks the distinctive quality of the historical fact: its singularity and its reality as a living experience. The past constricts the men of whom history speaks into puppets with incomprehensible gesticulations. Knowledge acquired about the past by assembling information and records still does not guarantee the capacity to "under-

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stand" it. To do so, one would have to penetrate the potentialities, the concerns, and the beliefs of men and to go back with them over part of the road they traveled in their universe. How can an "object" lend itself to a communication of this order? Only a "presence" has something to say to us; it alone can open up to us, tell its tale.

The past with which the historian is concerned is not that which rusts old weapons or lends a patina to outmoded furniture. For man the "truth" of the past constitutes his present. The invasion of the Huns was the calamity of the day for contemporaries. The historian evokes this present buried beneath the past, imbued with its atmosphere of beings and things—a present like our own, vibrant with purpose, concerns, and hopes. The king who attempts to extend his power or his state does so with his eye on the future. Should he limit himself to defending his crown or his kingdom, it is still with the future in mind. History is realized by the advent of this future.

The present takes on purpose, the dream takes shape in the form of enterprises, institutions spring up from decisions made in a day. This "passage" of the future into the present is the way that history is created. Historical "reality" is not a "thing"; its very inconsistency attests that it is essentially "realization," in other words, movement. Lastingness is perceived in a flash of light, and the event in the traces it leaves and in works. History speaks to us of the present, the living, not of the dead. The Greek temple, the Roman cloister, and the châteaux of the Renaissance still convey in hushed tones the presences, plans, the sweetness of life plucked on the wing and bitter struggles to survive.

The past is usually thought of as a continuity, a chain of events leading from a distant past to a near present. On the contrary, however, history has to do with that which is a split with the past. History's "object" is that which intervenes in the objective continuity that is fixed in its chain of events. Historical reality is, more than anything else, event.

As Paul Thevenaz writes, the event is "the power of eruption" proper to "the catastrophe that descends upon us, to the war that breaks out, to the decisive encounter or the internal conversion."¹ The event foils all calculations; it changes the "aspect of things" and the "course of history": the slaves' revolt, the discovery of new lands, an invention in all its novelty, the boldness of prophets and reformers, the genius in the flush of his creation. It is nonsense and can become outrage, but it also forces us to seek a

1. "Événement et historicité," *L'Homme et l'histoire*, Actes du VI^e Congrès des Sociétés de Philosophie de Langue Française (Paris, 1952), p. 219.

new meaning, to revise our scale of values. If one did away with this shock and this innovation, what would remain of history? The "natural" course of the world, the stagnation of routine, the comfort of a settled state of torpor, but definitely no "innovation," no institution, no progress.

Innovation jolts the "past" and agitates the present. A political change is deemed subversive, a religious reform seems a sacrilege, a want of understanding stalks the masters of art and philosophy. Freedom must forge its way past the barriers of an established world, acquired situations, intellectual conformities, sacred customs.

When creative liberty governs the event, the notion of the source eclipses the causal explanation. When the event is a Corneille, a Rembrandt, or a Beethoven, history penetrates into the realm of qualities. To accumulate records, to draw up comparative tables, to detect influences and filiations—all this patient "objective" labor would doubtless be adequate for handling the secondary works of those who continue or imitate a trend. In the presence of creations of genius it can, at the very most, show what is not a masterpiece by giving the reader or the audience a better understanding of where the literary or aesthetic "creation" springs from. Rotrou is as "interesting" as Racine, Auguste Barbier as "important" as Victor Hugo, in regard to "objective" method and causal exposition. For genius to assume its full significance in relation to history, the essential solitude by which genius reveals itself must be safeguarded in one way or another.

Virgil is not the "cause" of Dante, nor is Victor Hugo the "consequence" of Shakespeare. A work of genius is a unique event, without precedent and incomparable to other works. Along with genius something exceptional and new enters the world, as if by a leap or a surge. Originality and not derivation, it is not a condition, but it creates instantaneously. Nothing is more disappointing than the biographies of great artists or illustrious writers for those who seek in them a kind of "genial nature" that nurtures all action. Narrowness and flaws mar the grandeur that one would wish to find ever present. Genius evidences itself intermittently, like a grace bestowed as a precarious right.

Genius and the masterpiece are certainly "in history." But just as certainly they are constituents of history, before history, at the origin of history. Through them history advances and makes itself known. The masterpiece achieved in the present is created for the future, revealing a truth that had been hidden until then—a point of departure for subsequent developments. Dramatic art is no longer the same after Molière; Cézanne

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and Van Gogh opened up fresh dimensions to painting. Bach is not a Vivaldi, a Marc Antoine Charpentier, a Buxtehude, or a combination of these three "influences." Something begins with him: an intensity, a joyfulness, a kind of fresh dimension is proffered to the world.²

Great statesmen, inventors, explorers, to the extent that they open up new vistas, triumph over the interplay of deductions and causes that levels all originality. The founders of religion shake the weight of customs and doctrines. Decisions, undertakings, and institutions are historical only to the extent that they terminate the past and embark upon the future: a spirit of adventure is always present in the most succinct calculations. "Historical revivals" are conceived only when they return to prior problems or efforts in an actual and living relationship with the world. Napoleon repeats Caesar but in the atmosphere of his times.

For the notion of a continuous thread that unravels from prehistoric times to our day one must substitute the idea of a discontinuous thread, knots of events, some empty, some full, noteworthy dates and insignificant periods. Certain "events" are central, lighting up entire areas of history—Greek philosophy, the advent of Christ for Christianity, the "enlightenment" in the eighteenth century, the industrial revolution in England. A global point of view, in regrouping isolated and homogeneous "facts," enables one to acquire a more precise interpretation of each one of them: German unity in the nineteenth century is a movement of the whole, a totality which carries with it many particular facts and gives them meaning.

THE UNDERSIDE OF HISTORY

The reader might be tempted to conclude from the preceding pages that history has a penchant for noise and agitation, for spectacular enterprises, resounding speeches, open revolts, and scandals. But this hubbub cannot make us forget the "historical silences": the heavy silence of oppressed peoples, devotion concealed, quiet loyalty; the daily tasks that form the background canvas of "great history." Greatness is enveloped in silence, but so is crime or betrayal. Poison or the sword of treason are made ready in the shadows, and defection, in keeping silent, awaits its hour.

Silence grows heavy during the "historic" hours when the destiny of a people is decided. Parliamentary assemblies are filled with silence when grave circumstances bring the head of the government to the platform to

2. On the subject of aesthetic creation see Gaëtan Picon, "L'Esthétique et l'histoire," *Diogenes*, No. 4, pp. 31–51.

confront each man with his "historic" responsibilities: war or peace. This silence is history passing.

The historian is in a good position to know that silence, as much as noise or speech, is the raw material of history. It allows him to enter where the plot is being hatched, into the private assemblies where the sovereign makes his decisions, to witness the slow maturation of crises and revolutions. He sees through the vanity and insignificance of the farce played by false great men posturing before history. There are texts that must be "read between the lines," mute witnesses that must be interrogated, hidden grandeurs that must be acknowledged. One has to detect the truth beneath the mask and even on the mask, make silence speak without betraying it. A conspiracy is concocted between the historian's probity and history's "secrets," which allows a suppressed word, an authentic admission, to escape.

For history is, in essence, the word. Nature itself is silence where there is harmony and song. To become history is to speak out and give meaning to this eternal silence. Narration is the mode of communication proper to history. The event already has a meaning in itself; even when it surprises or eludes, it poses a question that demands an answer. In the presence of occurrences history is a "listening post" that waits for the being, for events to reveal something of the world.

It is the historian, because he himself is life and "subject," who alone can understand the secret meaning of the historical reality through his encounter with other lives. Beneath appearances and words which frequently mask the truth, he penetrates to the hidden springs and deeper motives. He is especially called upon to attribute a large share of the motives that guide men to the all-powerful impulses which have given rise to the "myths."

These myths are not just error or fantasies. They stem from living experiences or from collective patterns of action. They translate into symbols a certain concrete relationship with the world. They carry with them the heart's profound attachment and are mingled with judgments, "truths" which we profess to such an extent that we declare false whatever contradicts our myth and true whatever confirms it. Nation, class, system of government, cannot be inclosed in geographical, economic, or juridical definitions. The nation rests on national sentiment. Class-consciousness adheres to its own concept and nourishes it. No political regime is capable of subsisting without monarchical or republican loyalty, without a minimum of civic spirit. These realities are based upon collective sentiments, partici-

pation, rites, symbols which, although not entirely rational, nonetheless have their own coherence and "logic."

Historical "movements" interpret movements of the soul, communicable emotions, enthusiasms, or fanaticisms. How can one "understand" the revolutionary days, the impetus toward nationalism, the "revolt of the masses," without participating in the affective conditions and in the myths that gave them their strength and their pungency? To do so is not to indulge in pathos but to acknowledge the real in all the vibrations of being. Objective and subjective are not contradictory but complementary. An objective subjectivity, a receptivity that allows the object to appear just as it is, an understanding that is already, to a certain extent, by itself permeated with affectivity and will—only these attributes adapt themselves to that moving and complex "object" which constitutes historical reality. Better than a so-called impartiality, this total comprehension, capable of accepting the irrational and of respecting surprise, is necessary to the historian. To judge other peoples, he will be wary of prejudices and aversions that stem from his own national loyalty, but his own allegiance will make the foreigner's attachment to his land more understandable, even though he might be an enemy. A Catholic historian studying the Reformation will find it difficult to avoid a certain almost instinctive distrust of Protestant "heresy"; a Protestant will find it hard to overcome resentment of "intolerance" and "deviations." An atheist will readily yield to the illusion that his own "position" will immediately insure his impartial judgment, forgetting perhaps too readily that his "neutrality" at one stroke closes to him the mental universe of Catholics and Protestants.

There are very different ways of "orienting" history, even with the best of will. It can be written, as was done in earlier days, from a strictly national point of view: "History of France," "History of England," "History of Russia," and so on. But our epoch witnesses the appearance of "histories" that are envisaged within a European or even a universal framework. From the viewpoint of a history of France, Charlemagne's empire is a kind of monster whose dismemberment represents the birth of France; from the standpoint of a history of Europe, this dismemberment comprised the political formation of the Continent and led to ten centuries of "provincial" antagonisms. There exists, therefore, a secret spring that animates the historian's purpose and governs all emphasis.

Inquiries and publications are the consequence of a decision and represent "viewpoints," a selection in which the personality of the historian intervenes. Among great historians like Renan, Taine, and Michelet, Gabriel

Monod showed how personality determined the design and the shadings of history.³ Because of his intellectual honesty, it was toward critical history that Renan directed his attention; Michelet, the great visionary, found the perfect expression of his sensitivity in the tableaux of history as resurrection; Taine wanted to elevate history to the rank of a science, a rigorous exposition based upon laws. Confronted by such different "histories," who, then, would dare to deny their validity, once their point of view has been accepted? Truth does not emanate from "the nature of things"; it requires a decree of the mind, a decision about life that runs a risk in order to partake of the truth.

Such an attitude is doubtless a departure from the concept of history that was in favor during the end of the last century at the very moment when, for example, Langlois and Seignebos defined the general rules of historical discipline: "History is written with documents."⁴ The document from which methodical inquiry extracts the fact is master of the truth, a kind of pre-existing truth, that is concealed within the texts. We know today that the very notion of science in modern times reposes on a conception of truth that emanates from the fundamental orientation of thought since Descartes. The consequence of "subjectivity," which is the basis of our contemporary behavior, seeking from truth purely internal criteria on man as subject, acknowledges as true only that which we can project before us as images, as "objects." We reduce the entire world to a universal panorama, to what Heidegger calls a "*Weltbild*."⁵ When we manipulate "facts" like bits of "truth" and resort to documents as to a supreme judge of the true and the false, we act as though truth came to us from the outside, from objects. We forget that, according to modern thought which considers man the source and the master of truth, it is ourselves, in the last analysis, who decide the truth, having dismissed all authority with the same sovereign liberty which, through its knowledge and technique, nurtures the giant works of the universe.

THREATS TO HISTORY

In the long course of its labor of inquiry, criticism, and exposition, history is a "ghost hunt." The historical represses the legendary and the imaginary and only preserves the real. "To re-establish facts" in the face of fiction, to resist the persistent seduction of the fantastic and the miraculous, but also

3. *Les Maîtres de l'histoire: Renan, Taine, Michelet* (Paris, 1895).

4. *Introduction aux études historiques* (Paris: Hachette, 1897).

5. Cf. Holzwege (Frankfort, 1950), study entitled "Das Weltbild."

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to pluck from legends and tales the element of historical truth that is hidden in them—all this represents an incessant struggle. The anxiety to wage it has been bequeathed to us by the positivist discipline. No one can challenge this critical attitude. But there are muffled threats more difficult to exorcise either because they stem from the exigencies of the strictest logic or because they are confused with the evolution of history itself in modern times.

Determinism is both history's ally and its enemy. History would have no foundation in a world devoid of natural laws. In the absence of determinism, chance would decree man's fate, subjected as he is to anarchical forces. But if it is an absolute, determinism crushes freedom and, therefore, all history. Confronted with a continuous chain of cause and effect, historical science would be but a simple affirmation.

History is history solely because of its freedom. A history of slavery has meaning only if the conditions of servility run counter to a capacity for freedom. A history of techniques reveals that man is intent upon liberating his freedom from natural necessities. Freedom, it is true, causes an outcry in the world of reason. It is bitterly contested and can always be contested: it cannot be subtracted from nothing. "As an objectively scientific knowledge, it does not exist," writes Karl Jaspers.⁶ It can be seen only as concrete and living; it exists in the mute protests of the oppressed, in resistance to the invader, flight from servitude. Freedom cannot be demonstrated; it manifests itself, or it hides, which is still another way of revealing itself. Beneath the cold eye of the observer what remains of this freedom? Im-mobility or dream—it is that door to the future through which history enters the world.

But here is a more disturbing and more stubborn specter than determinism: springing from the embers of negativeness, nihilism undermines our epoch with its destructive force. The century is made dizzy by noise and sensations; it takes great pride in its giant cities, its bold constructions, its speedy transportation. But, silently, nihilism is on the prowl, debilitating vital forces, lying in wait for a time of fatigue or boredom, for those rare moments of quiet when modern man is accessible.

Wave follows wave, spring follows winter, insensitive to good or evil: nihilism whispers to man that the world is that nature which knows nothing and has no desires. Called "nonsense," "incredulity," "despair," it is the perfidious "Why?" raised by doubt in the face of the technical progress and comfort of our times. Nihilism undermines all moral strength through

6. *Origine et sens de l'histoire*, trans. H. Naef (Paris, 1954), p. 195.

political cynicism. It says in *Mein Kampf*, "A colossal lie has the power to dissipate doubt." It is wafted on the air of the century with all the nausea of the "scientific death" camps. And it is this giddy power which the "atomic revolution" intermingles with the vision of tomorrow's planetary upheavals.

Nietzsche's philosophy is outside our concern in this essay. But his historical significance is of importance to us to the extent that his bitter and fiery words herald a decisive event in our epoch—the wound that is buried in the heart of modern man and causes him to oscillate between excess and failure, defiance and absurdity.

Nietzsche did not "invent" nihilism. He merely demonstrated it at work in Western metaphysics since Descartes, and he forced it to become aware of itself. One might doubt that Nietzsche would have stopped there. Not only did he free us of facile negations, of vulgar atheism, and insipid immorality, but, further, carried away by his corrosive logic to the point of "devouring his own doctrine,"⁷ it would seem that, in turning his power of negation against nihilism, he neutralized its poison. Negation does not result in negations. An outcry, whether anguish or hope, reverberates throughout the void, like a freedom restored, like a passionate question seeking the being.⁸

Without doubt, Nietzsche's "nihilism" does not in itself warrant either faith or atheism. It merely opens up a "free area" where man, emancipated from false absolutes and specious doctrines, can ask his fundamental questions. The mind no longer proceeds along the paths of deduction or syllogism but rather in a more direct and simple relationship with the world; life, with its humble tasks, reunited through poetry and creativity, its liberty, and its truth—in short, its historicity. With this vision of the world, history, renewed by astonishment and discovery, freed from the superstition of objectivity and the so-called "laws of history," can in the end but gain in depth and lucidity. It is no longer a harmless game but a decisive battle; throughout other periods and through other men, history is really a matter that concerns man, his relation to the world, his destiny, his life—the concrete, actual, living man of the past confronted with the same preoccupations and dangers as our own.

7. M. Dufrenne and P. Ricoeur, *Karl Jaspers et la philosophie de l'existence*, p. 257.

8. On this problem see the fine article by Heidegger, "Nietzsches Wort Gott ist tot," in *Holzwege*.

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TOWARD A NEW HISTORICAL SPIRIT

During the last century the historian's working conditions have profoundly altered.

A. The purely technical plane does not need to be stressed here, since it has already been analyzed many times.⁹ The contemporary historian is the beneficiary of an imposing and varied production left to him by his predecessors; of an abundant documentation, of working tools on a scale which other periods never knew: libraries, archives, collections of texts, specialized periodicals.

In our times the historian runs the risk of being buried beneath the very abundance of documents of all kinds. The labor of research often defies the limitations of a human life and of an individual effort. The obstacle is the reverse in regard to ancient periods; because of a lack of sufficiently explicit documents, conjectures are often clumsy and hazardous. And in our day, of course, one can appeal to the human sciences: archeology, history of religions, ethnology.

Our epoch, demanding in regard to precision, has inherited a precious legacy from the critical method perfected by prior generations. But the spirit in which the critical apparatus must be applied needs to be more flexible, since historical "science" possesses a broader significance than in earlier days.

B. The field of historical knowledge has, indeed, been broadened and its perspective expanded. It is no longer limited to a political and military study of states. In accordance with the thinking of Karl Marx and the socialist theorists, history introduced problems of a social, economic, and cultural order into its sphere. Rural history, the history of cities, history of techniques, history of art and literature, ideas or concepts of the world—thus our vision of the universe branches out into diverse and complementary images. In the fervor of these discoveries we have come to the point of contrasting the "history of civilization" with the "history of events": a profitable distinction on condition that the diversity of the real is respected, but a harmful one should it become exclusive. The very landscape, the shapes of tiles, of fields and barns, which a Lucien Fèbvre utilizes for historical documentation are "events," realities that evolve in time, and in which a human presence manifests itself, with its concerns and interests.

9. Particularly in H. I. Marrou's book, *De la connaissance historique* (Paris: Éditions du Seuil, 1954).

Inversely, even a history of reigns and of battles is inconceivable today without at least a background of the economic, social, and religious circumstances. All history must be placed within its geographical context; it must be "fixed" in its proper place. The forms of geographical space play a part in the fate of the "Greek world" or in the changes in the British Commonwealth. History takes hold of space. Certain places are charged with history, and this historical flavor is blended with the place itself: Athens, Rome, Paris. At Aigues-Mortes, at Pompei and Paestum, one "inhales" the past like a presence, a nostalgic aroma. History teaches us, through its ruins and its ancient sites, that peoples and cultures die but also that the past is part of ourselves; the past bids us to remember our life, to look deeply into it.

The "march of history" has drawn historical reality away from us. For a century and a half technology has opened up an entirely new period through the conditions of life available to the Western world. A civilization that has at its command railroads, electricity, airplanes, instantaneous communication, virtually unlimited sources of energy, not only differs from other eras by virtue of its equipment and its way of life. It is the mental universe itself that has changed, thanks to man's progress in sovereignty—thanks also on occasion to the dizziness he feels in the face of a power that sweeps him along as often as it obeys him. Comfort is not solely an ensemble of needs and material advantages; it is a "state of mind," a need that contemporary man imposes upon the community.¹⁰ This need, combined with a Westernization of the earth and with the ubiquity conferred today upon man by rapid transportation, tends to mold his sensitivity and orient his thought to such an extent that the worlds of "another age" seem impenetrable: antiquity, the Middle Ages, and even the century of Louis XIV.

C. The problem of "mental universes" should occupy the foreground of the present-day preoccupations of the history of science. It is precisely this problem that Lucien Fèbvre dealt with successfully in his work, *Problème de l'incroyance au XVI^{ième} siècle*, which appeared in 1942. The many attempts to depict Rabelais as an unbeliever of the same ilk as Voltaire and Renan is an anachronism. The allusion to atheistic rationalism was made blindly, at a time when the sixteenth century was still imbued with a mentality steeped in magic, in occult practices, and in vague philosophies in which Catholic survivals were obscurely intermingled with "Lutheran"

10. Cf. A. C. Pigou, "Some Aspects of the Welfare State," *Diogenes*, No. 7, pp. 1-11.

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inspirations." Rabelais moves in a universe where belief and disbelief co-exist and intersect, where our rational impossibilities do not as yet obtain, rationality being still three-quarters mythology. In order to apprehend the mental universe of Rabelais, one must rid one's self of the nineteenth century's way of thinking and go back over the sinuous paths, still semimediæval, which the sixteenth century treads in order to uncover its "truth."

In another category of ideas, the domain of art, one cannot immediately assess Greek statuary, Byzantine mosaics, Dutch painters, "fauvism" with identical norms or the same sensitivity. There are sensitivities which are mutually exclusive—irreducible worlds, not games or diversions. A major obstacle to historical knowledge, the boundary of mental universes is also the decisive threshold leading to an authentic understanding of other times and other peoples, of other modes and other ideas.

We can never separate ourselves completely from our mental horizon. History merely opens up vistas into other universes. Even so eminent a thinker as Hegel lived and reflected within the framework of the "truth" which Western metaphysics proffered. He did not doubt the universal validity of this viewpoint. It required the philosophical invectives of a Kierkegaard or a Nietzsche, the rebellion of events against history, the lesson taught us by the human sciences, to reveal to us that the West was "a history" itself, a historical moment and place—that modes of thought, sensitivity, and even reason were changing. History, in turn, is a "moment" of history, a belated and perhaps fragile awareness in the mental universe inherited from Greece, from Judeo-Christian tradition, and from the Renaissance. Entire civilizations, like those of India or China, have ignored this concern. For a long time a mentality imbued with myths excluded the quasi-totality of the earth from its vision. Can one be certain that the historical perspective will prevail in the end?

D. The contemporary world is a problematical one. Intellectual security, moral ease, established truths—everything is once again called into question. Thus, in the midst of uncertainties or self-surrenderings, man's freedom asserts itself; but the fortuitousness of his life asserts itself as well. History should fear most today not a misapplication of determinism but rather the intoxication of a human freedom that comes to naught, or of a fortuitousness in which the individual being is no longer able to attach himself to a meaning, to an order, to a stability—in other words, to a history.

The grandiose idea of a universal history that can be embraced in a

single glance, a history that is objectively impartial and definitive, is daily losing its esteem. But, inversely, history has drawn closer to man and to his life. Its proper mission would seem to be that of protecting the concrete integrity of man from the oversimplifications of the scientific mind; to safeguard the singular, the unique, from the general, the abstract, and the essence. In so doing, it also protects man from the modern temptation of disorder, despair, and excess. It is man's concept of himself; it helps him to exorcise his own myths and to choose his way in the world with clarity and realism.

History is neither a "rose-colored story" nor a course in morality. It does not warrant an optimism that covers up with edifying tales the tragedy of reality where failure, misfortune, crime, treachery, and mediocrity are to be found. But, in contrast to those who would readily darken with their pessimism the entire course of events, history protests that it is born from a "Yes" as its response to an appeal from the world. Each morning, plans and hopes spring up to relieve the ennui of the disappointing pasts to make the present arise and face future struggles. People who have lived through the most bitter and bruised period of history still cannot believe that the children who come to take their place will not protect the lost causes better than they have done. Humanity is not a being that time has lined and wrinkled. Each generation offers history a new chance. History attests man's youth: it is youth itself, the ardor for existence, the gift of the being which is renewed at every moment. The present that it experiences is, according to Péguy's expression, "the very brink of the future on the side of the presence." The word that resounds in historical narrations communicates, from age to age, that presence, incessantly renewed, which, during its earthly stay and within its human limitations, breathes, struggles, and waits, its gaze turned toward the future and the light.

INFORMATION: A FACTOR OF ECONOMIC PROGRESS

I. CYBERNETIC AND ECONOMIC INFORMATION

Cyberneticians define information and the quantity of information in mathematical terms, apprehending them independently from their meaning. When they put aside their conceptualizations and symbolizations, foreign to the semantic content of messages, we see them hesitant about their domain of prospection.

Economic information is an object of knowledge; it is provided with a meaning for an individual, for an enterprise, for a unit of consumption. This object of knowledge is integrated with respect to the agent in one of two ways. The information of an agent may be said to be the body of the variables which constitute his economic horizon. In another way, however, it is the body of variables which he takes into effective consideration in forming the plan of a determinate economic action and in revising this plan as it proceeds.

In a somewhat different sort of analysis we might say that each agent has his "field of possibles" dependent upon his information, his imagination, and his capacity for synthesis. The information is an ensemble of

Translated by James H. Labadie.

objects of knowledge, the imagination proposes plans by combination, and the capacity for synthesis composes a structure of elements following the plan decided upon. Each agent retains from among the possible plans one constituted by means of information bearing on the present and information concerning the future. The aim or result anticipated in the plan is a modification of the organism forming it and of the environment of this organism, that is to say, an "imagined information."¹

So far it has been supposed that the plan under consideration is not conceived with a view toward the producing or selling of information: reasoning has been rather on the level of an automobile manufacturer or of a dealer in refrigerators.

Information is still integrated on various levels today, as the very object of production and exchange. The press, advertising, and public relations firms sell information or, more precisely, the supports for information. Consulting and social engineers, technical, fiscal, and juridical counselors, accountants, and marketing specialists procure information in exchange for money, as do professors, lawyers, doctors, scientific researchers, and laboratory workers.

The producer and seller of a piece of goods which is not primarily an information or a support for information acquires information in order to form and then correct his plan; he sells information in the form of advertising or in other forms in order to reach his goal; he buys more information in order to know exactly the results of his management and to improve them. As for the producer and vender of information, the newspaper publisher, the advertising man, the public relations expert, or the public opinion pollster, they act in the same way, except that information itself constitutes their merchandise.

When the economy is decentralized and based on private enterprise, as is the case in the highly developed countries of the West, this goods or economic service called "information" has a cost and yields a return. Subject to the law of the system, it is produced and traded only if and insofar as it yields a net profit beyond its cost. The offers and bids which determine the prices and costs of information in all its forms depend on the preferences and the resources of organisms as observed in real economies; they are seen not to operate in conditions resembling the perfect markets of theoretical competition. Manufacturers and dealers, industrialists and merchants, are highly dissimilar as to the size of their enterprises, their power in negotiations and contracts, and their place in the national and inter-

1. Louis Couffignal, "La Cybernétique," *Encyclopédie française* (Paris, 1957).

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national economy; therefore, they also have dissimilar capacities to buy, to create, and to spread information. Likewise, the manufacturers and sellers of information, the entrepreneurs of the press and of advertising, differ widely both among themselves and in relation to other industrialists and businessmen.

Information circulates, then, in such economic systems as monopolistic competition, oligopolies, and ententes. Like contemporary capitalism, the increase in all kinds of information reaching the public has spread under the laws of monopoly and concentration. The largest organisms, those most powerful and most influential by very reason of the sector of activity to which they belong, wield an economic power and a nameless power which is a function of their capacity to be informed and to inform.

Today's capitalism, better informed than preceding economies, is not, for all that, more peaceful. The best information services can be acquired by the largest and most powerful, who take on the best personnel for technical research, forecasting, market research, advertising, public relations, and the best intermediaries between their companies and the government; they can assure themselves of strategic positions in the press.

This concentration of the power to collect, to create, and to spread information is an urgent danger of monopolistic capitalism. The state in the Western democracies is certainly not independent of large interests, which often besiege and even take over the government. Cross-currents of opinion and partisan counterattacks risk a weakening of political action or an onslaught of staggering blows depriving the government of continued effectiveness. This realistic hypothesis must be borne in mind if we are to understand how the state can act, through information, to serve economic progress.

The state is never neutral, any more than is the information it distributes. Expression of the dominant classes, it gathers and spreads an information which ordinarily does not contradict, but rather serves, the interests of these classes. However, the dominant classes in contemporary economies and democracies are forced to come to terms with the organized proletariat and with groups enjoying the least favor. In free regimes these elements, too, have some means of gathering and spreading information. Then, too, the dominant classes do not form a homogeneous whole; their component parts, in their contradictory efforts concerning information, give to a fraction of the public and to well-informed observers the means of understanding the hidden aspects of economic alli-

ances and struggles. Finally, statistics and public accounting, however removed they may be from the attention of the public, provide for the initiate occasions for quantitative and rational discussion.

The struggle of those most disfavored by the information (among other means) remains the principal guaranty against the lies and the ruses of "general-interest" information procured by the government in a time of monopolistic capitalism. The opinion organizations not only do not present in and of themselves the guaranty that this struggle will be effectively carried out but are on many occasions the means used to paralyze the struggle.

Arbitration, where information is concerned, is therefore necessary in monopolistic capitalism as well as in every other field, but this is almost impossible in the sense that governments, legislative assemblies, and administrations reflect to a large degree the very relations of forces which they are supposed to arbitrate. Let it be added that to arbitrate is neither to destroy nor to block—those initiatives are currently taken by disfavored groups and by the organized proletariat, as well as by the parties which serve it or use it. The doctrine of these parties is, indeed, that, all arbitration being a capitalistic bait, it is fitting to stop the machine or to throw it out of kilter as often as strategy may so dictate.

It is under these extremely difficult conditions that an economic information superior to that which is gathered and spread by such opposing interests must be established. No society, whether capitalist or not, is homogeneous or "reconciled" in the spontaneous movements of its functioning and of its historical development.

Economic progress is dependent on an information entirely different from the informations governed by the profit motive and by the particular advantages of groups and categories. And this word "progress," often loosely employed, deserves careful examination.

II. ECONOMIC PROGRESSES AND ECONOMIC PROGRESS

For a national community, economic "progresses" are measured by well-known statistical procedures. Real average product or real average disposable income or real average expenditure for consumption items rises. Consumption budgets include items of improved quality, and the relative share of a characteristic part of budgets—for example, expenditures for food—declines. In real total product the relative share for "services" increases, as does that of a "tertiary" sector, characterized ordinarily without too much intellectual exactitude and occasionally including replacement

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figures. The economy functions in such a way that over a long period the real average revenue increases, the real average wage increases, the length of the average workday decreases, and the workingman's leisure time increases. These indexes of progress have been studied; their statistical use is well known. On another occasion I explained the insufficiencies of each of these indexes and their inability to show how the total picture of an economy can be called "progressive."²

I intend to show forcefully that the distinction between singular and plural (progress, progresses) is not an artificial one or a trick of terminology. It clearly underlines a basic position, calling attention to basic difficulties and doing so with a view toward proposing a well-defined solution to these difficulties. Economic progresses are the changes in values of the indexes which I have just briefly summarized. They are, from another point of view, gains in well-being and in freedom for various particular social groups. Economic progresses for whom? This is the first question in any analysis of a concrete situation. What classes, which groups, receive the fruits of the progresses, in what proportions, at what rates? Who bears the burdens of the progresses? Economic progress cannot be said to be present in a society until it has been shown how the economic novelty emerges in it, how it is propagated and spreads its fruits, and what sense, what meaning, of economic life is inscribed in the institutions, collective representations, and real behavior.

In our Western societies, as a matter of pure fact, progress is understood by moral philosophers and obscurely felt by the masses to be an essentially collective movement; it proceeds from the group, and it is destined for the group. In vain are the moral philosophies and the religions of the Occident hypocritically deformed and exploited. They are tirelessly reinterpreted and compared with the new aspects of societies remodeled in social struggles; these philosophies and religions contest the claim of particular individuals and groups to present themselves as exclusive authors of progresses, and they combat the efforts made by both groups and individuals to use progress to their own benefit. These forces, strange to the market place, act on minds and change institutions; they are added to the forces of competition among social groups to spread novelty (the new idea, innovation) and to diffuse its fruits (increased well-being and enhanced freedom). Neither the appearance nor the propagation of innovation is sepa-

2. François Perroux, "Les Mesures statistiques des progrès économiques et l'idée d'économie progressive," *Cahiers de l'Institut de Science Économique Appliquée*, Series I: *Le Progrès économique*, No. 1, December, 1956.

able from the perceived and experienced meaning of economic activities.

An economy is progressive when effective innovation, let us say that capable of increasing real productivity and a real product, spreads and propagates its fruits, with the least delay and at the least social cost, in a network of economic relationships whose sense is universalized, that is, becomes intelligible and acceptable to all, especially to the least favored.

This is what I mean by progress, and the subject I have chosen can henceforth be formulated with some degree of precision:

1. The increase of informations of all kinds which are available to the economies of the twentieth century increases their capacity for economic creation, for applying new ideas, and for innovation.

2. In monopolistic capitalism, even more than in competitive capitalism, the inequalities of large units, among themselves and in relation to small and medium-sized units, makes indispensable an information distinct from that gathered and diffused by private interests.

3. This is difficult because the state is largely dependent on monopolistic capitalism. It can, however, uncommit itself from this dependence in struggles between social groups, and, thanks to the co-operation of elite groups among technicians, with the organized proletariat and defense groups of the least favored.

4. This militant and always-threatened information is one of the main chances of highest capacity for economic creation in modern societies, of the best propagation within these societies, of innovation and its fruits, and of the search for a meaning of economic activity intelligible to all and acceptable to everyone.

Information "of general interest," "demystified" in and through social conflicts and, no less, by new gains in objective knowledge, is linked to each of the aspects of progress: to creation, that is, to the ensemble of activities raised and put into effect by effective innovations, to the propagation of the innovation and of its fruits, and to the meaning intelligible to all and sanctioned by the concrete behaviors of an order of economic activity. The analysis is to be applied to each of these aspects.

III. THE CAPACITY FOR ECONOMIC CREATION

Scientific economics has constructed models in which, coefficients of production being given and constant, net additional investment is the motive of economic development and progress; this investment operating, and the propensity to expenditure (for consumer items) being determined and

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invariable, the growth of real income is a multiple of the growth of real net investment. The multiplication mechanism of J. M. Keynes will be recognized. Now this multiplication effect is certain and univocal only if the given initial state of the economy recognizes an incomplete utilization of resources and if the conditions of constant coefficients referred to above are present as well.

If, in the static and stationary state in which resources are fully utilized and, to the optimum degree, a net monetary investment is accomplished, it leads to a rise in prices but not in real product, unless it incorporates innovations which make finally available to the consumer an equal quantity or an increased quantity of the desired product at lower costs and prices. Otherwise, the net monetary investment leads to a less effective use of resources, and real product is diminished.

For a given population, then, average real product increases or not, depending on whether the net additional investment does or does not lead to effective innovations. At the same time a given net additional investment produces more or less of an increase in net real product and average real product insofar as it contains and propagates more or fewer effective innovations.

Effective innovation is that which lowers costs and prices of goods and services and thereby increases the total product available in an economy, calculated in terms of current prices. The effectiveness of innovation could never be appreciated in isolation, in the narrow space of its earliest and immediate effect; innovations engender other innovations in zones far removed from the place of their first appearance. Major innovations give rise to effective innovations in a large number of industries. The motive force of economic progresses, beyond the mechanical actions of multiplication by net additional investment, should therefore be sought in effective innovation. The power of economic creation is identified with that of giving rise to effective innovations.

The increase of economic information currently available, its improved precision and better transmission, increases the creative power of private enterprises and of governmental and other administrative entities. A factory owner or other head of management having a given degree of imagination and aptitude for selection and synthesis has more chance of innovating effectively as his information becomes richer. Better informed, he has a choice among various technical procedures; he is familiar with the organizational modalities of interpersonal relationships in his firm; he is informed about the environment of this organism and foresees its probable transformations; he is not ignorant of the results of past and

present management and can extrapolate them under various conditions. Despite the quality of recent efforts to raise the return from public administrations, we are still accustomed to turn to industry and commerce for our examples concerning the virtue of these multiple informations; it is however, certain that the analysis is no less applicable to political and public services. In both domains, actually, a manager, during at least a part of his professional career, is likely to improve his powers of synthesis and perhaps his aptitude for imagining new schemes as well, to develop his initial capacities by perseverance in the manipulation of "rich" information; thus the manager's creative aptitude is dynamically strengthened.

On the other hand, in administrations as well as in businesses, information machines perform the functions of registration, classification, conservation, and calculation which were formerly performed by human minds; they do this with greater speed, power, and precision. Since these problems and the groups of operations necessary to resolve them are imposed on the machines by men in technically rigorous forms, a type of creator is henceforth required who will no doubt be more and more clearly separated from the man who is just a calculator; he must be, to state it briefly, an imaginative man who expresses his poetry in the form of equations.

Organizations are needed in services which use electronic machines and introduce new divisions of labor. By the appropriate organization for the circuit of information, the manager can render his authority more effective. By better circulation of information within the unit, the influences fortunately exercised by capacities and competencies independent of official hierarchies can yield their fruits. In all echelons and in all sections of the directing teams, the capacity to create can be unburdened of the most automatic and mechanical operations.

Thanks to new techniques, perspectives likely to resolve many acute difficulties are opening up. Chief among these difficulties have been insufficient internal co-ordinations within the great public and private bodies, the accumulation of unused and scattered bits of information, the practical impossibility, where there are numerous heads of service, for all to be possessed of the background required for giving instructions or orders with full knowledge of what is involved, and the discouraged feeling of the most responsible chiefs unable to find time to take care of current matters, maintain a minimum level of discipline, assimilate new materials in their professional specialties, and find the peaceful hours so conducive to creative planning.

It is not the capacity to create in one unit but rather in co-ordinated

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bodies of different units that modern information, with its techniques and equipment, is developing. Is it succeeding? A growth of real product is resulting, and, at least for the present, an accelerated rate of growth.

I have sketched this future for both private and public organisms. The fact is that at no time in modern history has the oversimplified contrast between government and commerce been verifiable; much less so that favorite contrast made by certain polemicists between the economic sterility of the state and the exclusive fecundity of private enterprise. Eighteenth-century industry in Great Britain was not launched exclusively by competition or by private entrepreneurs quite apart from the collective monopolies of the nation and from the decisions of the state, which provided the means for expansion.³

The greatest capitalism in the world today calls itself "individualist" and presents itself as liberal, but its economic creation is fundamentally the result of close co-operation, even symbiosis, between the state and the large "corporations."

The creation of information, discovery and invention in the realm of basic science and its applications, proceeds largely and ever increasingly from publicly financed research. Of the total spent for organized research, 83 per cent came from the federal government between 1940 and 1945, compared to 19 per cent in 1940 and 14 per cent in 1930. Technical progress in metallurgy, explosives, aviation, and navigation was nourished by the war and is linked to public spending. The state is interested in the stimulation of pure research: it created the National Science Foundation in 1950. It is also interested in encouraging the applications of research: in 1946 it founded the American Research and Development Corporation, which makes funds available to firms taking exceptional risks in breaking new ground.

Major innovations, such as the application of thermonuclear energy and automation, are developed in large measure through government initiative, orders, and funds. The disruptive effects of the application of these innovations are foreseen and estimated in public discussions, and the distribution of the costs and fruits of progress is no longer intrusted to the market place. "Technological change," said the spokesman of the United Auto Workers before the commission investigating automation, "will permit us to raise our standard of living, but society's advance must not be made at the expense of the human being." "The real question,"

3. For more details cf. François Perroux, "La Théorie générale du progrès économique, I: Les Composants. 1. La Création," *Cahiers de l'Institut de Science Économique Appliquée*, 1957.

declared Mr. Nourse, "is to know how the costs of progress should be divided between private and public bodies." It is now understood that the state must be the associate of industry whenever necessary, in order to reduce the possibilities of technological unemployment caused by major innovations; if their application does not follow, it will not be because the difficulty and the means of resolving the problem have not been foreseen.

It has also been realized that wage levels and increased leisure can no longer be determined in the most progressive industries without regard to the rest of the nation. Beyond a certain level of real wages, the continued advance for the most highly qualified and most favored workers takes the form of a shortened work week, longer vacations, and increased leisure. Is this politically possible and in accordance with officially accepted social morality, when a third of the population is condemned to a standard of life which that very morality has judged to be insufficient? This question is raised in an important official report on automation, and it can scarcely be evaded.

If the most fortunate unions accept a shorter leisure period in consideration of the needs of others, they will be showing a willingness to sacrifice to national solidarity the distribution system of the market economy. If they refuse, they break not only with national solidarity but also with class solidarity and show that a pressure of an ethical nature could better serve the proletariat than a unionism supposedly designed for the service of a whole class.

So we see that major innovations do not come exclusively from the private market, nor are they regulated by it. Their long-term realization is subject to public discussion and state control.

These same procedures are employed to correct the spontaneous movements of the cycle by means of automatic stabilizers and discretionary political moves. Everything happens under the world's greatest capitalism—despite doctrinal resistances and delays—as though not merely depression but the cycle itself were no longer considered to be superior to the will of men. Stabilization by means of forecasts and co-ordinated programs, by economic education of companies, administrations, and the public, has entered the phase of concrete reality.

In order for even these imperfect checks of long-term and short-term imbalances to come under discussion and become sharply defined as to their aims and their means, it has been and still is necessary for an economic information "of general interest" to be gathered and diffused. The general interest, the collective advantage involved, is not defined once and for all.

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It does not spring fully armed from Byzantine discussions of welfare. It is not uttered by each of the great collective partners but rather emerges little by little from their dialogues and their conflicts. It is one concrete quest in a procession of social struggles. Regulations by a blind market and a so-called natural order no longer inspire confidence. The great capitalism does not succeed in stifling an information directly contrary to the maximizing of monopoly profits. It comes up against the resistance of organized labor. It has to deal with real basic powers in information: the power of the scholars, researchers, and technicians of pure and applied science, the power of several political and administrative elites armed with a scientifically verifiable knowledge.

American capitalism becomes less unintelligible in and through the opposition dialogues of social classes. Its functioning has some chance of being conscientiously checked on as it is first of all understood more objectively.

In the face of these changes, might one not be permitted to distinguish and contrast two types of effective economy? One, that of the first industrial revolution in Great Britain, takes advantage of the social gap between the economic creator and the executor. With difficulty, the statesman, the manufacturer, and the factory owner produce fruitful innovations. The worker, terrified by the prospect of unemployment and the workhouse, is reduced to the material status of a tool. The mainspring of this economy is coercion, and information is the property of the dominant classes.

The other economy—far from realization anywhere at all but which cannot be dismissed as a chimera thanks to observable transformations already achieved—would rest on the adherence and the participation of its performer to the work of collective creation. The function of this economy would be understood little by little and could be better and better acknowledged and explained. It would depend on an information no longer mystifying, with everyone in his place really knowing what he did, how he did it, and exerting an extra effort to accomplish the common task, beyond considerations of personal remuneration.

This economy of adherence and participation, built on an extension of positive observations, is the first figure in the sketch of a progressive economy.

IV. THE PROPAGATION OF INNOVATION AND OF ITS FRUITS

Effective innovations, the new products and procedures which bring down costs and increase total real product, do not occur everywhere at the same

time and are not uniformly distributed. Neither is the increase of real profits and real wages accomplished at the same time nor at the same rate in all segments of the economy. At a given moment of observation and during a certain period of time there is in a developing economy adjustment at points of economic progress and, continuing from these points, propagations of innovation and of its fruits.

Three important changes mark the Western economies in the twentieth century: one in the field of prices, another in the mechanisms of competition among industries,⁴ and the last in the mechanisms of distribution. These changes determine the forms of the propagation of innovation and of its fruits. An examination of each of them shows the role of information in economic progresses and that of information "of general interest" in the emergence of the progressive economy.

1. Changes in Systems of Price

Complete competition is pure, that is, without any admixture of monopoly, and perfect, that is, without functional defect. Under such a system, whose analytical content is known, each firm, unreservedly obedient to the indicator which is price, is not, and has no need to be, informed about the conduct of other firms, nor need it be concerned with even its own structure, which is reduced to a set of factors of production gathered under a co-ordinating power. In this sense the model describes an uninformed market. Contrary to what one is led to believe by common opinion about competition, this system when fully effective is not favorable to the formation of innovation in the individual firm or to the spreading of innovation from one individual firm to another. Under capitalism each firm innovates with a view toward profit. However, an abnormally high rate of profit is quite transitory under complete and perfect competition. Each firm has the means to innovate with the higher-than-average profits realized and accumulated. Now, in the case under consideration, these extraordinary profits are continually and rapidly eliminated. Let us add that each individual firm is so small a part of the industry that its conduct exerts no noticeable effect on other firms.

Competition needs many impurities and imperfections in order to provide an atmosphere conducive to economic progresses. These qualities, by which competition becomes once again the act of men capable of projects, and of projects incompatible with each other, may be observed in the existing markets of our time, which are informed markets.

4. Or, one might say, "in the mechanisms of the structuring of total product."

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We frequently observe industries in which companies produce diversified products and show selling costs beyond costs of production in order to increase their relative participation in the total demand. This is a somewhat roundabout way—but a meaningful one—of saying that they advertise. There are two sorts of advertising, to state the extremes: one is publicity which informs, which gives the customer an opportunity to choose wisely, and another is publicity which coerces the customer, by setting up conditioned reflexes, into buying without making a considered choice. In both cases the firm, instead of innovating effectively in the fields of technique and production, can make an effort to sell. Only a counterinformation among its customers and in the public authority can force the firm to put out new products at low production cost, instead of distributing existing products at a given production cost, by exerting an effort to sell. When there is coercive advertising, it is the two similar reactions of alert and organized customers and public authorities most attentive to productive techniques and excesses in selling technique that can preserve the consumers' capacity for discernment and prevent their being transformed into robots who purchase automatically.

Counterinformation of the parties directly concerned, the information of political and administrative bodies, and the information of public opinion are therefore decisive for the emergence and the propagation in the markets of economically effective innovation by industries whose products are differentiated and put on sale through a politics of publicity.

Competition among oligopolies, that is, among a small number of dominant firms in an industry, calls for these same observations because in most cases oligopolies offer differentiated products and use advertising. However, the domination of the market by a small number introduces important new developments. Each of the principal partners makes decisions regarding production and sale only after considering the probable decisions of the other partners. Then the effectiveness of each member in oligopolistic struggles is dependent upon its reaction time, that is, on the quality of the internal circuit of information constituted by its own company. Finally, in these same struggles, each one tries to modify to his own advantage the rules of the game set forth by the public authorities and even the structure of the partner: all actions in which information plays a privileged role. The oligopolies, enjoying abnormally high profits, provide the impetus to innovate and the means to innovate. What will this innovation be: a novelty destined to be quite temporary and harmful to a clientele destined to be subjugated or a novelty propitious to a lasting

increase of total real product placed at the disposal of all? The answer depends a great deal on the relative power of information held by each partner and on an information "of general interest" acquired and kept active by all organisms capable of judging and acting other than under the dictate of the oligopolies.

The most important aspect of this point is neglected in current price theory: in the contemporary economy oligopolies do not exist in isolation; their strategies are often laid down within economic and financial groups. The great industrial firms, banking institutions, advertising, and the press—all large enterprise and administration—are enmeshed with secret webs of interests and of information.

Everyone knows that these tacit alliances and coalitions, subject to change during a given period of time, exist; but, in view of the difficulty of objective documentation and the dangers inherent in its use, few scientific studies have been devoted to this subject. As long as this obscure zone is not lighted, we shall remain ignorant of some of the most powerful springs of innovation and its propagation under monopoly capitalism: the stakes are high enough to make it worthwhile mobilizing the proletariat's power of resistance and the relatively independent elite's capacity for curiosity and investigation.

2. *Changes in Mechanisms of Competition among Industries*

The development of a modern economy works by a change in proportions of total product, that is, of the relative participation of industries⁵ in this product. Relative product of an industry, expressed in current monetary value or constant prices, increases or diminishes. New industries slowly supplant some industries and revive others. These changes in the structures of production are inseparable from the increase of total real product and average real product; through them, newness is propagated in the body economic, in a given period of time or from one period to another.

An important part of the process is explained in the broad scheme of competition among industries. Since total demand is supposed to be increasing for autonomous reasons, an industry increases its relative participation in this increasing demand by lowering its production costs and

5. Empirically defined. One industry sells a product different from the product of another industry in technical and economic characteristics. The reader is here referred to the delimitation of industries as presented in useful statistics, not to the theoretical concept of an industry defined by a homogeneous product or by a degree of differentiation of the product analytically determined.

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its selling prices. The consumer exercises his demand in favor of these progressive industries; they derive from innovation higher-than-normal profits; they attract to themselves a relatively greater quantity of the best factors of production; they can proceed to relatively more widespread and more intense research and to net additional investments relatively more important and more effective. Each of them is limited in its expansion only by the effort of its rivals, by saturation of the particular demand made of it, and by the emergence of new industries.

In this scheme of things, in order for the best dynamic distribution of resources to be operative, it is necessary and sufficient that each industry be informed of realizable techniques and of the probable preferences of consumers; that each consumer really knows what he wants and the use he wishes to make of any surplus funds. Since the rigors of the theoretical static situation are not transposable in terms of this historic *processus*, it will surely be necessary to admit imperfections and impurities into the picture; then, too, this system will remain informed only to a minimal degree; it will employ the consumer's elementary information concerning the use of his income and the producer's concerning the techniques of his production.

The existing economies of the twentieth century are by no means so simple. The relative growth of an industry depends on its capacity to increase its share of total industry sales by a politics of selling and by the exercise, independently of its capacity to innovate, of its monopoly powers in regard to its rivals, to those who provide it with materials, to its clients, and even to the public interest. New industries do not emerge from the mere union of technical progress with a dynamic entrepreneur but, frequently at least, through the co-operation of economic and financial groups and of governments.

The result is that the structure of production is not automatically controlled or controllable in practice by spontaneous movements of the market and buyer preferences. The general interest is no longer conceivable as a result of mechanisms outside of and superior to the conscious decisions of alliances and coalitions of economic agents. These alliances and coalitions among owners of the means of production, among organized workers, among professional interests, among political aspirants, defend the structures of production which they consider desirable; they attempt to put them into operation by means quite different from the best cost and the best price proposed to a consumer who knows what he wants. They make every effort to have the game played according to

rules most favorable to them, to obtain the benefit of the broadest possible credit, the rate of exchange which will serve them best, and the most opportune and durable subsidy. This struggle for a production structure most in line with the wishes of these alliances and coalitions of interest can be neither judged nor arbitrated by the expressed opinion of the consumer. It should be done by the voter. It could be done by his representatives, or, at any rate, by the most competent and capable of his representatives. For this an information "of general interest" is required, demystified through real struggles; the emergence of such an information will be facilitated by relatively independent elites and scientifically verified economic knowledge.

3. *Changes in the Mechanisms of Distribution*

Changes in the mechanisms of distribution in the twentieth century impose similar requirements. This may be demonstrated by showing that none of those changes registered over long periods (without, to be sure, being imprudently assimilated in the historic laws of development) indicates in and of itself that the economy is becoming progressive. In addition, none of these changes, which might be vaguely and superficially explained by pressure of social groups, can be understood through a thought process which militates in favor of progress, except in terms of the basic functions which must be fulfilled in any type of organization, if regression is to be avoided.

A mass of facts of decisive consequence will clarify these propositions. The first is a decreasing inequality in the distribution of personal income, observed over long periods in highly evolved economies and measured notably by a comparison of the form of Lorenz's curve over successive intervals. When it occurs, this decreased inequality is not, in itself, a sign of a progressive economy; at most it might be considered a preparation for progress. Under capitalism, inequality fulfils three functions concerning which I make no judgment here but of which I accept the incontestable reality. Inequality is a basis for the accumulation of capital; the highest income classes are the ones which save; if they are eliminated, another type of accumulation must be organized, through, for example, more or less forced savings and taxation.

Inequality of income has a role to play in the stimulation to productive effort; if it is reduced, it must be replaced with statutory inequality, inequality in social prestige, or inequality in the practical means of labor exerting some of the influences that used to arrive at inequality of income.

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Purely as a matter of fact, let it be added that inequality of income and inheritance is one of the elements constituting social power and social cohesion; if it is destroyed, other forms of social power must be built in its place, and new bases must be given to social cohesion. From these various points of view, the most effective and the most continually propagated innovation is not automatically realized through decreased inequality. In a given type of organization there exists an optimum inequality—an inequality which, taking historical conditions into account, best fulfils its three functions. The transition from one type of organization to another is full of risks and confusions; social struggles make it possible practically for them to be approached otherwise than under the influence of the ideologies and information divulged by the dominant classes; but this is only the beginning of a demystified information capable of understanding irreplaceable economic functions and, through education and persuasion, of making both intelligible and acceptable the conditions under which these functions can be performed.

Let us now consider those characteristics of wages in twentieth-century economies that are indicated in speaking of salary as a dominant form of income. I assume responsibility for this terminology and for this analysis. I hope I will not be held responsible for propositions that I have never formed and that I do not wish to assume. I have here in view only two incontestable facts.

In highly advanced capitalisms (1) the real wage rate is defended by organized labor, which employs in its struggle numerous procedures foreign to the competitive market, and (2) full employment is defended for its own sake—a high level of employment is sought by the unions and, recently, with the official acquiescence of governments. As a result, the total flow of wages (the number of employed workers multiplied by the effective rate of wages paid to the worker) tends to be very much more difficult to change than it was during the nineteenth century, up to the time of World War I. Another result is that economies tend in fact to achieve their developmental adaptations otherwise than through the lowering of the total flow of wages.

This situation prepares the way for a progressive economy but does not create it automatically, nor does it guarantee its establishment. For the working class itself, what matters in the final analysis is full employment compatible with full innovation, with the most active and most rapidly propagated effective innovation. The fixing of economic resources in a predetermined employment structure, rigidity of relative wage scales

without any regard to productivity, structural inflations resulting from the rigidities and inflexibilities present in all segments of the economy, a flagging in the disposition to create and to work resulting from a blind application of the slogan of full employment, and a one-sided politics of wages—all these are marks of an economy afflicted with evils which threaten it with regression insofar as it has neither understood nor maintained the objective conditions on which its continued functioning is based.

Let us consider, finally, how profit has become a threatened form of income in the economies of the twentieth century. Nothing of importance can be said on this subject until four present conditions of the permanent problem of profit have been explicitly formulated.

Profit from long-term decisive actions of a modern economy, that is, from major innovations, is a result of the creative power of private and public bodies. Eventually, I shall refer the skeptic to the way in which exploitation of the newest and most revolutionary sources of energy is being undertaken and to the action exerted by regionalist politics on the amount and rate of profits in a nation and its provinces. The division of a realized or anticipated profit between the government treasury and business is thus often established not between a government providing “generous” public services and a private innovator but between two co-operating innovators.

To consider private firms alone, the profit from monopoly and that from innovation are in many cases indissolubly linked one to the other and in a very exact sense, because such elements of monopoly as the difficulty of getting started in industry help consolidate profits and make them continue, enterprises or coalitions of enterprises can budget large sums for research in the hope of invention and innovation.

On the other hand, in certain well-defined cases, as when a large firm enjoying a partial monopoly imposes its prices on smaller firms but at the same time enlightens and sustains them, or when a leading firm is followed by firms under its influence and helps them to innovate, it is indispensable to distinguish the autonomous profits of the large from the resulting profits of the small; the propagation of innovation among unequal firms in industry does not necessarily mean a disservice to effective innovation; induced profits which benefit the “little” firm do not, in an individualist logic of the firm, belong to it.

Let us add that, in all cases in which joint productions (creation of new industries, large-scale rehabilitations of existing industries) are undertaken by economic and financial groups, it is systems of interlinked

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profits which determine investment and establish the rhythms of exploitation of natural resources as well as the politics of sales and reserves. These group procedures among commercial banks, industries, and exporters, for example, are neglected and misunderstood in profit theories, which are impotent to clarify action and to guide it correctly.

It is puerile to confuse these changes in the data of the profit problem with signs of a progressive economy or to explain them economically by almost uncompromising reference to the pressure of social groups.

In monopoly capitalism (or in any system whatsoever) profit exercises economic function. It provides remuneration for the joint services of creation and authority; the chief of the producing unit, whether it is simple or complex, must at the same time bring about effective innovation and reconcile the various providers of services—technicians, workers, investors. Creative capacities are rare, and so is the capacity for authority; to find both capacities in a single person is extremely rare. The remuneration for these two allied capacities is, consequently, in any type of organization, high compared to that given for active performance of work; in addition, the form of this remuneration is inadequate unless it suits the type of man to whom it is offered. It is difficult to conceive, under capitalism or under socialism, that the agent who successfully accepts and copes with the double challenge of economic creation and economic authority gives to his fullest if he receives an income or a salary determined administratively.

Profit, in every economy which remains decentralized, is nourished by the accumulations and the uses of capital directly attached to the development of the unit of production; they are dependent upon the unit's individual fate and prepare its individual success in the future. These accumulations and these particular uses contradict the logic of the general and anonymous attribution of capital by a perfect financial market or by a perfect central investment and credit body. Insofar as they exist, they reintroduce tensions which may be economically fruitful between producing units whose needs in additional capital would be ill served by the concrete existing financial market or central investing body.

Monopoly capitalism supervised by public programs shows, in the midst of extreme confusion, some signs of a profit functionally discussed. The share of profits in monopoly and in power remains considerable. However, several circumstances are causing profit to be formed quite differently than was the case in the second half of the nineteenth century.

Public accounting assures the public services a less imperfect knowledge

of the profits of individual and grouped companies. In meetings held to prepare programs or plans of investment, industrialists in contact with the representatives of the "general interest" and sometimes with those of organized labor disclose their intentions concerning expansion and modernization of their business. The public bodies who control treasury policies, credit, and admitted or hidden subsidies are in a position to exercise an action on the amount of realized and distributed profits and on the rate of profit based on capital or sales.

I wish to emphasize that I form no value judgment on this stage of affairs; I make no prediction about its future development. Far from rules and prophecy, I simply state the reality, in important and not at all ambiguous cases, of a profit whose amount and rate depend partly on economic discussion—whose amount and rate are the results of conscious and considered imputations operating in a broader framework than that of the individual firm or even of a whole industry.

This profit is no longer an ephemeral residue on the non-informed market of pure competition. It is no longer a residue on markets of differentiated competition and oligopolies where information struggles are added to price struggles. It is very obviously not the economically opaque and unintelligible residue formed by the pressure of social groups. The interested parties themselves well know what is apparently forgotten by some analysts full of good will—that in present-day rationalized social struggles, in order to resist or attack, to organize a defense or launch an offensive, what is needed is not the exercise or invocation of naked power but rather a demonstration that one is performing a useful function in the economy.

Economic discussions of profit are carried on in terms of its irreducible functions. Profit does not necessarily tend toward the form of institutional income or salary; the conditions of its formation and use are beginning to be withdrawn from the mechanisms of economic and social competitions; they are becoming dependent upon a dialogue more evident and more intelligible between representatives of economic agents (including governments) co-operating in the collective work of economic creation.

V. THE DIRECTION OF ECONOMIC ACTIVITY

Western economies of the twentieth century no longer obey only the logic of the market economy but also that of the human economy.

The market economy proposes maximum profits, the maximum gain resulting from trade with a view toward enriching particular groups and

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individuals. Acquiring and holding wealth, these groups and individuals desire and accomplish their own expansion.

The human economy proposes satisfying the basic needs of all, the maximum freedom concretely lived by each human being, with a view toward opening up⁶ all of man's potentialities in each individual.

The logic of the human economy is strong and conquering, compared to that of the market economy. It is seen in the distinction currently being made between economic and social progress; this distinction is repeated in its reassuring banality at the level of superficial and sheltered inquiry, since it would become dangerous and even revolutionary if it were carefully examined. In fact, when economic progresses operate at man's expense, through the destruction and deterioration of human beings, the dominant classes aspire to social progresses as a revenge against the way the system functions, accepting discussion and compromise in order to avoid irreparable ruptures. The progresses called "social" compensate—slightly—for the hidden losses, the tacitly accepted waste in human energies thanks to which society can show high productivity expressed in terms of things, inert objects. When, on the other hand, the human heritage is safeguarded, increased, improved by the very action of the institutions which direct production and trade, economic progresses tend to embody social progresses. In an economy which would continually reduce tensions in the struggle for the acquisition and enjoyment by everyone of all the means of human life, no economic progress would be qualified unless it were also a social progress; no progress which lessened the broadening opportunities of human beings would deserve to be called "economic"; conversely, no progress would be called "social" unless it gave each being the means of achieving human status in his life.

The progresses specified by the names cited above disclose contradictions between the acquisition of wealth and social needs. Economic progresses in the fullest sense would, on the contrary, mark the stages of a progress toward economy without scarcity and toward society without constraint.

These two myths do honor to the thought and the action of the West. Our historic experience has been and remains such that these myths are accepted by lucid, reflective, and honest minds merely on condition that they measure up to their historical truth in an action tested and a knowledge verified through social struggles.

6. E. Minkowski, "Expansion et épanouissement, Uit," *Tijdschrift voor Philosophie*, Vol. IV (December, 1956).

Enterprise, the market, commercial trade, and private ownership of the means of production have long been considered as the main institutions of an order at once unique and necessary. The stylization and magnification of an epoch in abstract diagrams have in no way slowed the course of history; we have had to see clearly that human expression not only calls for specific means but also wins its rights against the theoretical logic and concrete strategies which supposedly enjoyed a privileged position. The reduction of unemployment, the protection of health and leisure, the diffusion of public instruction and political rights, social insurance, social security—all the gains of the progressive economy have been claimed, despite "expert" opinions declaring them impossible, and seized from classes which had intended to sacrifice no chance of aggrandizement. These gains did not follow but rather shattered the varied logic of profit and individual gain, of the market which pretended to be neutral and separate from political organization, or private ownership of the means of production supposedly conceivable without reference to the social disciplining of power.

Social struggles and the less narrow and partisan knowledge which came out of them have forced an acceptance of the plurality of views—the diversity and opposition of meanings attributed to a single institution determined by the position of the observer watching it and the combatant transforming it. This gain, truly in the social dialogue, has been accompanied by a slow (and continued) demystification of universalist ideologies, placed at the effective service of class and national particularisms.

Western ideologies are all universalist in principle. Frenzied nationalisms, wild-eyed individualism, and fanatic imperialism are never content with themselves and have not sought their own justification in their immediate and obvious actions. They stated their rights in the name of a society which would finally be reconciled, of a regime of abundance and liberty to be finally achieved through the very introduction of abundance and liberty. Each individual, each particular group, being well served, the total of humanity would finally be well served. Through what harmonious law? After how long a time? No one could venture an answer without the risk of deception.

Having come of age in and through our struggles, we today place our trust in the conscious effort of societies which are undertaking to become reconciled in themselves and with others. We no longer have faith in a harmonization operating above and outside ourselves. We accept the painful teaching that comes from real conflicts. These prevent us from

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confusing the peace of a few with the slow, painful conflict of all. They help us unlearn the liberty proclaimed and conceived by the smaller number and incline us toward a preference for the patient and effective liberation of the multitude.

To be sure, our collective memory still functions quite badly, but it does preserve us from many illusions and makes us suspicious of generosities which change nothing in the material arrangement of the world. Our power of collective anticipation remains mediocre; however, the long periods required for concrete projects imposed on us by contemporary technique, the sense of a task and a destiny for the human species beyond the ephemeral accomplishments of nations and empires, are fabricating for us a time whose dimensions are not the same as that of our predecessors; they felt and thought as broadly and as far as we, but their knowledge and power were incomparably less than ours. Humanity has become informed about itself, through its struggles and through the precarious conquest of relative, demonstrable, and expanded truths. It has become more capable of both memory and future.

Will it discover a minimum moral science communicable to all? This is the question asked by men of science, led, in their paths and by their methods, to the idea of a perfecting of the species. The hope of this perfectibility, judging and condemning the destruction of life and the annihilation of the material obstacles to the advancement of the mind, constitutes the sole step in which the contradictions inherent in economic progresses would no longer appear to lead to a dead end.

Our societies have advanced economically, by trial and error, at the price of immense wastes of resources, exercising harsh constraints, practicing a distribution of the burdens and the fruits of progress which is neither inspired by strictly constructed models nor checked by exact and sincere accounting. Economic progresses are encumbered by contradictions and acts of ignorance which in themselves would merit very careful studies.

It is when a procedure or a piece of machinery is producing its best yield that it is supplanted and retired. Special progresses, sometimes complementary, are also often opposed to each other. The individuals and groups which launch and pay the costs of a first development are shunted aside by the workers of the twelfth hour who draw the full benefit of earlier efforts. Savers and innovators lose—or their descendants lose—the fruits of saving and innovation. The acceleration of technical progress brings with it fecundity but also incoherence. To finish a job quickly and

to elude the irritating difficulties involved in the critical speed of progresses, we provisionally advocate the most rapid spread of innovation. Each person wishes to shorten the delays which separate invention and laboratory tests from widespread industrial use, but no one can yet measure scientifically the best rhythms of propagation.

Will skeptical doubt result from these contradictions and these forms of ignorance? Or will it be lassitude?

At this point it must be realized that the meaning of economic relations is becoming universalized in pure fact. Each being, each group, capable of observation and reflection knows that real transformations in institutions are beginning to transform the being or group into artisans of a truly collective work. He knows too that the egotist, the greedy person "turned in unto himself, is but a man in a state of arrested development . . . infantile in instincts, a sort of sub-man" (Jean Rostand). He knows, finally, that the struggles and real co-operative efforts of living men cause them little by little to know the factors of determinism involving them, that they then begin to surpass these factors, and that they earn a common freedom through a criticism and a combat begun anew each day.

This is sufficient for the contradictions of progresses, without being resolved, to be surmounted. The least distracted and the most conscious conceive themselves, not without reason, to be co-operators; they do not live in the haunting fear of being dupes. They create; they labor at a task which escapes the calculations of individuals, the trickery inherent in all societies of men, and the errors of all their calculations.

THE REPUBLICS OF THE MIDDLE
AGES: ESSAY ON THE
COMMUNAL CIVILIZATION

The bourgeoisie—that fundamental reality of our civilization—has not yet found its historian. Although there are more studies, relatively speaking, on the period following the Revolution, the evolution of the bourgeoisie prior to the eighteenth century is known to us only through fragmentary research, local and limited. The attention of historians is attracted solely to the exceptional cases in which the financial powers happen to play a direct political role—Colbert, Jacques Coeur, Fugger, Bardi, or Buonsignori. The great expansion of the northern cities during the thirteenth century inspired the researches of Henri Pirenne and his disciples; the high point in the development of Italian cities was studied by the Saporì-Luzzatto school, but the sum of this evolution has not been synthesized. There is not a single general history of the bourgeoisie, yet entire libraries are dedicated to feudal society.

Translated by Elaine P. Halperin.

Each time the problem of the "bourgeoisie" arises in regard to a period prior to the Revolution, historians add the adjective "nascent"; each time it manifests itself, we are led to believe that it has just come into being.

In reality, however, bourgeois and feudal societies were constituted at the same time, amid the anarchy of the ninth century, and they developed side by side, without interruption, until 1789. Since then, however, until the eighteenth century, the bourgeoisie did not emerge from obscurity, save for rare burgeonings, and there was a tendency each time to look upon its appearance as a beginning, although it was, in fact, the culmination of a long evolution.

While we know how unclear historical divisions are, how inexact in reality are their boundaries, still we must divide the history of the bourgeoisie into two cycles: a communal cycle that extends from its origins to the end of the eighteenth century and a state cycle that begins in the fourteenth century and in which we still live. (We are deliberately avoiding the term "national"; we know that only in France and England do the notions of "state" and "nation" begin to be fused as early as the fourteenth century; in other European countries states alone were constituted during this period; the formation of nations occurred much later.)

Since communal civilization is not too well known except among specialists, a synthesized outline of it will therefore be helpful. It does not exist within the French, Italian, or German framework, because the communal zone has a contour different from that of modern countries. Urban civilization developed along an axis that traversed Europe from south to north; the first bourgeoisie appeared in Italy and in Flanders, then spread along the route that connected them and, above all, at the halfway meeting point in Champagne, where the market towns sprang up.

"When the State is faltering, when, generally speaking, anarchy reigns over vast areas, a social organization tends to take place, arising from the need for protection. This is order in disorder."¹ It was amid the general anarchy of the ninth century, in a Europe devastated by invasions, that both feudal manors and urbanization began to take form.

The ninth century is the darkest age in history. In spite of the first invasions and the downfall of the Roman world, vestiges of ancient civilization subsisted until the Carolingian epoch, to the time of Alcuin. Despite the encroaching barbarism, instruction in classical literature and the circulation of gold money persisted until 800; the arrival of the Normans finally destroyed the last vestiges of civilization. Around the year

1. H. Berr, *Évolution de l'humanité*, XLI (1934-53), vii-viii.

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800 utter darkness reigned. Civilization disappeared, and iron money, a sign of the direst poverty,² replaced gold. Europe became an open continent, yielding without resistance to the Norman, Saracen, and Hungarian devastators. This ravaged world was to return to prehistory and even to cannibalism; according to Guilbert de Nogent,³ human flesh was sold at the market place in Tournus. The local lords survived only by adopting the invaders' warlike, plundering, and seminomad way of life.

In all catastrophes and in all panics there are always among the disturbed throngs a few realists who consider the circumstances lucidly, judging the situation in political and economic rather than in mystical terms. In this starving and destitute world, in which there was a crying need for goods, the Italians were the first to show both the necessary intelligence and the capacity to import consumers' goods. This was done at first by the Venetians, owing to their geographical position and the relations they maintained with Constantinople and Alexandria. Their first imports of oil, wine, wood for construction, pepper, and Byzantine silks brought them considerable profit.⁴ The commerce of Venice and the wealth of the Venetians grew with tremendous rapidity. While the invaders had not yet finished their task of destroying the ancient world, the modern world began to be constituted. It was in 811 that, for the first time after the fall of the ancient world, a non-feudal sovereignty emerged. Guistiniano Partecipazio, a merchant and shipper, who became in that year the first doge of Venice, began the history of the modern bourgeoisie.⁵

The commercial movement spread to the interior of the continent and reached Pavia; the list of the rights of the city of Pavia, the *Honorantiae civitatis Paviae*,⁶ demonstrates the existence of an already rather well-developed commercial organization in the ninth century. The fairs that took place in this city were meeting places not only for merchants who came from Venice, Amalfi, Gaeta, and Salerno but also for ultramontane merchants who brought horses, slaves, Flemish woolen goods, English

2. Robert Boutruche, "La Circulation monétaire au moyen-âge," *Revue historique*, July-September, 1949.

3. Guilbert de Nogent, *De vita sua* (Paris: Édition Bourgin, 1907).

4. Gino Padovan, "Capitale et lavoro nel commercio veneziano," *Rivista di storia economica*, Vol. XIX, No. 1 (1941).

5. Cf. G. Luzzatto, "Les Activités économiques du patriciat vénétien," *Annales d'histoire économique et sociale*, 1936.

6. Cited by J. Lestocquoy, *Villes de Flandre et d'Italie* (Paris, 1952), p. 16.

pewter, and German weapons. Thus the barbarian world was traversed from the south to the north by a great commercial current that followed the large natural routes formed by the valleys of the Rhine, the Meuse, and the Scheldt. Feudal Europe was established during the ninth century with, in its midst, a heterogeneous element—bourgeois dynamics.

The creation and maintenance of this commercial current encountered great difficulties; to traverse Barbary with a load of merchandise was a heroic undertaking. The heavy chariots or mules that transported the bundles of merchandise wrapped in packcloths and skins moved very slowly,⁷ and, under the most favorable conditions, it took about twenty days to go from Pavia to Provins in Champagne. But scarcely a trip took place under "normal" conditions. One merchant tells how he was blocked by the Alpine snows for thirty-five days; another, that he was stopped for six days by the swelling waters of the Rhone; still another, that he had to make an unexpected detour because the bridge he planned to cross was washed away by floods.⁸ But it was not only the elements that the merchants feared; there were far graver dangers in the nature of hazardous encounters, for the roads were haunted by barbaric hordes and by bands of robber-barons who "specialized," one might say, in plundering caravans. Moreover, armies of robbers traveled with empty chariots in their wake which they used to transport their booty.⁹ The pillaging of merchants was not only not dishonorable; it even became the subject matter for epic poems. Bertrand de Born, exhilarated by the announcement of an expedition of this kind, lightheartedly sang:

Trumpet, drums, flags and horses, forward! And the weather will be fair! And the weather will be fair! For we will rob the usurer of his goods, and the beasts of burden will no longer safely travel the roads by daylight nor will the bourgeois be free from fear, nor the merchant, journeying to France. But he who robs lustily will become rich!¹⁰

To counteract these difficulties, the bourgeois organized; naturally, they traveled armed to the teeth. Espinas made an impressive list of knives, swords, shields, crossbars, boarspears, and clubs which constituted the equipment of an itinerant merchant;¹¹ but there were far more important

7. See H. Laurent, "Un grand commerce d'exportation au moyen-âge," *Bulletin des Commissions Royales d'Histoire* (Belgium), No. 23 (1934), pp. 375 ff.

8. See Cipolla, "In tema di trasporti medievali," *Boll. storico Pavese*, Vol. V (1944).

9. See Marc Bloch, *La Société féodale* (Paris, 1940), p. 21.

10. Bertrand de Born, ed. Appel, 10.2 and 35.2, cited by Bloch, *op. cit.* pp. 21-22.

11. G. Espinas, *Une guerre sociale interurbaine* (Lille, 1930).

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means of protection: association and solidarity. At St.-Omer,¹² Genoa, Milan, and in all the more important cities, guilds and fraternities or friendly societies were set up. An association bound its members by an oath of solidarity:¹³ each member promised to help his cojuror "as he would a brother." Refusal to come to the aid of a cojuror was heavily penalized.

Historians of the nineteenth century often confused the guilds, the traveling and the transportation associations, with the communes which were sedentary and institutional associations. Current researches tend to dissociate them, although, in the last analysis, the principle was the same in both instances: the solidarity, consecrated by oath, of the bourgeois who had identical interests to protect.

The history of communes was little known before they achieved legal recognition. This is true for several reasons. Their ecclesiastical chroniclers, to whom we owe our information about this period, were categorically opposed to the communal movement. Guilbert de Nogent, speaking of communes, says: "This new word is detestable." Clandestine conspiracies, pursued by the authorities, were not anxious to have their activities recorded in documents. Furthermore, they were not yet interested in their own historiography. In the ninth century the leaders of the most important bourgeois power, the doges of Venice, were still illiterate.¹⁴

All that has come down to us are echoes of the activity of communes everywhere against the feudal powers. The episcopal and abbatical organizations that administered the territories of the communes included a fiscal and juridical administration which hindered commercial development: transactions concluded at the Grande Place du Marché of Arras were subject to a triple tax; the canons of the cathedral of Notre Dame en Cité, the monks of the Abbaye St. Vaast, and the agents of the count of Flanders all collected a series of taxes. Battles even occurred between the canons of the cathedral and the abbey monks who interfered with each other in the collection of taxes. The bourgeois of Modena and Turin twice revolted against the bishops who governed them: once¹⁵ in 891 and again in 897. In 924 the merchants of Cremona rebelled at a time when the Hungarian invaders, a few hours distant, were ravaging Pavia. The bour-

12. See A. Giry, *Historie de la Ville de St.-Omer* (Paris, 1877), who sees in the guild the origins of the commune.

13. For communal oaths see Ch. Petit Dutailis, *Les Communes françaises* (Paris, 1947).

14. See Molmenti, *La Storia di Venezia nella vita privata* (Bergamo, 1910), pp. 401-10.

15. Cf. Chiapelli, "La formazione storica del commune cittadino," *Arch. st. it.* (1930).

geois, we see, did not await the end of the invasions to demand their autonomy.

The insurrectionist movement reached Genoa, Bergamo, Brescia, and Verona, spread toward the north, along the great route of the Rhine; revolts broke out at Worms and Cologne, then in Flanders, Cambrai,¹⁶ Arras, Noyon, etc. In spite of these revolts, the administration of the cities remained in the hands of the bishops. For more than two hundred years the bourgeois continued to struggle. Rebellions broke out in 1035 and in 1044 at Milan, in 1074 at Cologne, and in 1078 at Cambrai. The uprisings were too numerous to list—the movement was a general one.

Results were achieved slowly: a few bourgeois were admitted to the episcopal councils that administered the cities—in 1024 at Pavia, in 1030 at Milan, in 1095 at Flanders, in 1111 at Arras, in 1115 at Douai. In 1127 an unforeseen event provided the Flemish bourgeoisie with a chance for real progress: the murder of Charles the Good caused a governmental crisis in Flanders. The current rivals attempted to win the support of the cities by granting them "franchises." Thus, in 1127, Guillaume Cliton granted to Bruges, St.-Omer, Ghent, Ypres, and several other cities of the county charters which bestowed considerable prerogatives on the bourgeoisie.

His successor, Philip of Alsace, attempted to limit these prerogatives, but after his death in 1194 Philip Augustus granted almost total freedom to the northern cities. The king of France required financial support from the cities because he had embarked upon a very costly campaign against England. "A Prince without money will never be a good warrior," wrote Jean Bodel of Arras, who, around 1190, composed an epic song in which the emphasis was placed not upon the valor of knights but upon Charlemagne's financial and fiscal problems.¹⁷ One might say that the bourgeois really "bought" their independence. From this period on the great commercial cities became veritable bourgeois republics.

"The principle of the communes in the Middle Ages, the enthusiasm which caused their founders to brave dangers and misery was indeed that of liberty," Augustin Thierry wrote in his *Lettres sur l'histoire de France*. In the light of subsequent developments we know that this movement led to a progressive liberation of the bourgeoisie, but the bourgeois of the

16. Cf. F. Vercauteren, *Étude sur les "civitates" de la Belgique Seconde* (Brussels, 1934), pp. 226-27.

17. Jehan Bodel's *Saxenlied*, ed. F. Menzel, E. Stengel, and A. Heins, (2 vols.; Marburg, 1900), *Laisse LI*.

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twelfth century did not seem to be clearly aware of this. The famous charters of freedom which historians of the Romantic era praised were actually very modest documents. They did not contain the slightest trace of a political idea. "These charters appear to be improvisations. . . . Confusion, contradictions and puerilities abound."¹⁸ One can imagine the committee meetings in which the participants were mainly concerned with their immediate and perhaps even quite trivial interests, demanding provisions that occurred to them at the time. For example, at Orléans there was an encumbrance of wagons at a time of day when the Porte Dunoise was being used to bring in food. In the charter of rights an article was inserted ruling that "wagons must yield the way to others as soon as they have been unloaded."¹⁹ Of course there were clauses pertaining to the protection of the bourgeois from abuses of seignorial power, but these liberties were not at all Ciceronian. The bourgeois of that era conceived of liberty in barbarian terms; communal charters dealt with the rate of fines payable for attacking a bourgeois. The documents contained detailed tariffs: the fine for one finger cut off of a non-bourgeois was two sous; it went up to four sous if the victim was a bourgeois. The bourgeois "blood price" rose; members of the bourgeoisie became "more expensive" and thus were better protected.

This communal bourgeoisie, which, according to the 1194 charters, actually established the foundations of modern liberty, conceived its emancipation in Merovingian terms. History marched on, holding a lantern aloft, without intellectuals to lead the way. The heads of the communal movement did not as yet know how to read or write. It was only during the ninth century that the bourgeoisie began to acquire culture, but even this must be regarded as a very modest start. The appearance of "communal" schools was first noted in 1020 in Florence, Ravenna, Siena, Bologna, Salerno, and Pistoia.²⁰ The first great bourgeois institution of learning was a law school inaugurated in Siena, but this occurred only in 1173.²¹ In the north the bourgeoisie did not found its own schools until the twelfth century. Ghent was the first northern city to have a communal school.²² The records of the monk Guiman inform us that in Arras, before

18. Dutailis, *op. cit.*, pp. 45-46.

19. *Ibid.*

20. Cf. Saporì, "La Cultura del mercante medievale italiano," *Studi di storia economica medievale*, p. 285.

21. *Ibid.*

22. Henri Pirenne, "L'Instruction des marchands au moyen-âge," *Annales d'histoire économique et sociale*, I (1929), 13.

1150, there were "adulterine" schools, probably secular ones functioning in the city alongside abbatial and episcopal schools.²³ However, their level still seemed to be elementary.

Who were these first bourgeois and where did they come from? The existence of these groups of free men in the midst of a world of serfs bound to the land raises a question. According to Henri Pirenne, they were fugitive serfs who came from far enough away so that their lords had lost all trace of them—adventurers, mainly, who grouped together in a new community. In a period when civic status was still a privilege reserved for princes, there is very little information about the common people. Only when they reached the summit of their destiny did the bourgeois think about their ancestors, and not for the purpose of ascertaining the truth about their origins, but in order to invent a glorious heritage. Such were the famous Tolomei of Siena, who claimed to be direct descendants of the Ptolomean dynasty, a genealogy concocted out of whole cloth and inspired by the fortuitous resemblance of names.²⁴

According to the most recent studies, the inhabitants of cities did not come from so far away. Canon Lestocquoy's researches in Flanders and those of Luzzatto in Italy even prove that they came from quite nearby; they were principally small landowners of the area and functionaries of the abbatial or county administration—in short, vavasors and nobles of lowly rank.

Between 800 and 1100 the commerce of the cities was mainly concerned with agricultural products. Most of the transactions registered in the markets of Champagne until about 1100 have to do with commodities of this type, principally sheep, cattle, leather, wine, etc.²⁵ The first bourgeois were both merchants and landowners in Venice. This might seem curious in a city constructed over water, and yet the Partecipazio were landowners. Their property was situated on the lagoon, along the banks of solid earth and in the territory of Treviso,²⁶ as well as in Florence, Genoa, Arras, Brussels, Douai, St.-Omer, etc.

The beginnings of what we can already call the "industrial revolution" occurred around 1100. The method of production that prevailed in the cities from this time on constituted a revolution in comparison to the

23. See *Cartulaire du Moine Guiman*, ed. Van Drival (Arras, 1877), p. 51.

24. Cf. E. von Roon-Bassermann, *Siemesische Handelsgesellschaften des XII-ten Jahrhunderts* (Mannheim and Leipzig, 1912).

25. Cf. E. Chapin, *Les Villes de Foires de Champagne* (Paris: Champion, 1937).

26. Cf. Marancini, *La Costituzione di Venezia* (Venice, 1928).

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manufacturing systems in use during the same period in neighboring areas.

In manorial organizations the manufacture of cloth—for the textile industry represented the most important production of the Middle Ages—was reserved exclusively for women. During the early period there were some male artisans and specialized male workers among the very first groups. Guiman's records on Arras and the *Honorantiae civitatis Pavie* mention the existence of artisan-weavers well before 1100. But the weavers do not seem to be very different from other artisans; in Pavia they were even put in the lower category of the non-privileged trades.

The sudden change that occurred in the twelfth century was determined by the intervention of the capitalist patrician. The bourgeois, who had already acquired a considerable fortune, thanks to his commercial activities and revenues from land, organized a group of artisans who were to work exclusively for him. This did not, as yet, constitute a factory or even a small manufacturing enterprise. It was merely a group of small domestic workshops,²⁷ and in these "house-cells" the artisans lived and worked with their families and their apprentices. The houses, the tools (the owner of the tools was not always known to the workers), the raw material, and the management belonged to the employer. This industry developed with prodigious rapidity. By the beginning of the thirteenth century the employer was already the head of a real trust; he controlled the spinning, weaving, cloth-fulling, and dyeing groups as well as the shipping companies and counting-houses.²⁸ His purchasing offices in England acquired the best English woollens and saw to their steady shipment to Flanders. These shipments did not take place as precisely as clockwork; in the thirteenth century it was an adventure to cross the Channel. Around 1260 Adam Esturion, an industrialist from Arras, asked for a tax exemption on the ground that one of his ships laden with wool had foundered between England and Flanders.²⁹ The company organized everything from the purchase of raw materials to the sale of textiles at the international counting-houses that had opened in Champagne, Genoa,³⁰ Pavia, Venice, and even in Constantinople and Alexandria.

27. Cf. G. Espinas, *La Draperie dans la Flandre française au moyen-âge* (2 vols.; Besançon and Paris, 1923).

28. Cf. De Poerck, *La Draperie médiévale en Flandre et en Artois* (Bruges, 1951).

29. Cf. *Chansons et dits artésiens*, published by A. Jeanroy and H. Guy (Paris and Bordeaux, 1898), XXIV, 97.

30. Cf. Renée Dochaerd, *Les Relations commerciales entre gènes, la Belgique et l'Outre-mer aux XII^e et XIV^e siècles* (Brussels and Rome, 1941).

Until 1100 there were not more clothiers than bakers or barbers, but from that time on their numbers multiplied. One could already speak of a workingman's corps. In the large industrial cities like Arras, Douai, or Florence workers accounted for almost half of the urban population. The group increased; the outskirts of cities inhabited by workers expanded; industrial civilization already had created tentacled cities. In Verhaeren's country, for more than eight hundred years, "people go off toward the big city."

The cities resounded with echoes of the noise made by the trades, with the thrashing of cloth. The poet Baude Fastoul, plagued by loneliness, poverty, and despair, composed two little verses about the "concrete" music of industry:

Now is my soul by these torments thrashed
Like cloth by a washing woman.³¹

While modern industrialization blackens the air of cities, the textile industry of the thirteenth century made it blue. Woad, the main coloring used for cloth, tinted the people who worked with it with a blue dye. The mass of workingmen who peopled the industrial sections of the northern cities were called "blue-nails."³²

The development of this new civilization created conflicts. In Florence, particularly, a violent antagonism existed between the old patricians, merchants, and landowners, who, by virtue of their ancient lineage, laid claim to a certain aristocratic superiority, and the rising industrial elite. The former, the white Guelphs who, in the thirteenth century, were almost reconciled with the feudal Ghibelines, had an illustrious spokesman: Dante Alighieri. In the struggle against the black Guelphs, the "industrialist" party, the latter triumphed, and we know that Dante and all his political friends were banished from Florence.³³

There was no such conflict in Flanders. The statutes of the *Confrérie des Ardents* spoke of a difference of opinion between the "bourgeois" and the "knights" around 1190; we know that the "knights" were part of the first Patrieate of Arras, but this is referred to in such a summary fashion that we cannot draw any social conclusions from it.

Patrician governments headed the bourgeois republics from about 1200

31. V. Congé de Baude Fastoul, *Nouveau recueil de contes, dits et fabliaux* (Paris, 1842).

32. Cf. H. Pirenne, "Les périodes de l'histoire sociale du capitalisme," *Bull. Acad. Belg.* 1914.

33. Cf. A. Renaudet, *Dante humaniste* (Paris, 1952).

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on. The governing assemblies, which were called "aldermanic councils" (a term derived from the Carolingian *scabinatus*) in Florence, "consulates" in Italy (with the exception of the word, these institutions have nothing in common with the ancient consulates), were recruited exclusively from the patrician class, which, meanwhile, had become a caste. In every city a group of families—always the same ones—maintained their power from about 1200 to the fifteenth century.

In the feudal world of that era, where sovereignty was always concentrated in a single person—the lord, for whom power possessed an individualist form—the existence of these collective sovereignties constituted an exceptional phenomenon. How did the bourgeois come to conceive of republican government?

Apparently the establishment of institutions was not preceded by any political theory; rather it can be explained by the natural play of a certain number of equal forces which, having opposed each other for a long time (we know how many times patrician families massacred each other in Venice, Florence, and Siena before they arrived at a system of collective government), finally acknowledged their equality and divided power among themselves.

During the thirteenth century, the bourgeois republics that had reached a high point in their evolution controlled all of Europe, thanks to their economic power. Their international activities from this time on are too well known to be stressed here. Let us merely recall that around 1250 the bourgeois of Siena possessed a network of banks and commercial counting-houses which included not only Italy, Flanders, and Champagne but also England, France, Spain, and Germany. They were the bankers for the crown of Aragon, the king of England, the Anjou family, and the Roman Curia.³⁴ We know that the Florentine company of the Bardi, who, around 1300, had a capital of almost 875,000 florins, owned sixteen branch establishments scattered over all of Europe and employed about five hundred people.³⁵ The Uten Hoves of Ghent were bankers for the king of England; the Du Markiets of Douai lent money to the Count of Flanders.³⁶ But Arras was by far the most important city of the north, the only one comparable to the Italian cities. In 1274 the count of Artois owed 114,000 pounds to the bankers of Arras. To understand the magnitude of

34. Cf. Roon-Bassermann, *op. cit.*

35. Cf. Yves Renouard, "Le Compagnie commerciali fiorentine del Trecento," *Arch. St. Ital.*, I (1938), 52.

36. Cf. H. Van Wervecke, *Candi: Esquisse d'histoire sociale* (Brussels, 1946).

this sum, the reader must realize that 3,000 pounds represented the price of a completely equipped galley ship. A single family of Arras, the Crespins, loaned more than 123,000 pounds in one year to various clients.³⁷ During the same period another family of Arras, the Loucharts, loaned 44,000 pounds to the king of France.

In 1296 the Crespin brothers, creditors of the city of Bruges, exerted such pressure upon that city that Pope Boniface VIII personally interceded in its behalf. A few years later another debtor of the Crespins, the city of St.-Omer, asked the king of France for protection against the "Crespinese people," probably an army of mercenaries who were attacking it. Then the cities of Ghent and Ypres asked for protection against these same Crespinese. Finally, the kings of France and England concluded a treaty in which they promised protection to the debtors of the Crespinese throughout their entire kingdoms.³⁸ This indicates the extraordinary power that the bourgeois republics possessed in the thirteenth-century world.

In the cities the patriciate constituted an elite, as we have seen. The rest of the people, that is to say, the great majority of the urban population, the "commoners" as they were called in Flanders, the "little people" in Italy, are far less familiar to us. The two sources of information at our disposal—professional statutes, on the one hand, and political and literary documents, on the other—provide viewpoints that do not always tally.

The communes of the thirteenth century have left us a mass of artisan regulations³⁹ which give a haunting image of a truly concentrated city. However, since we have found no precise confirmation of this in the evidence from various sources, and since we cannot ascertain to what extent these regulations were applied, we must view the documents of fraternal organizations with a certain reserve.

In principle, therefore, the commoner of the city was registered in an enormous fraternal organization, which in turn was divided into professional or geographical cells. The organization regulated not only the professional but also the private life of people with extreme precision and in great detail. The application of these rules was controlled by "watchers." They were authorized to enter the domestic workshop at any time in

37. Cf. G. Bigwood, "Les Financiers d'Arras," *Revue belge de philologie et d'histoire*, Vol. III (1924) and Vol. IV (1925).

38. *Ibid.*, cf. "Le Régime juridique et économique du commerce de l'argent dans la Belgique du moyen-âge," *Mem. de l'acad. de Belgique, classe des lettres*, 2d ser., Vol. XIV (Brussels, 1921).

39. G. Espinas, *Les Origines du droit d'association* (Lille, 1942), Vol. I.

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order to ascertain whether or not the artisan was actually living and working according to the rules—if he was using the prescribed tools and behaving as he was expected to, if he was eating in conformity with municipal orders, and if he, his wife, his children, and his apprentices were clothed in accordance with the regulations.⁴⁰

The individual's freedom seemed reduced to little enough, for he could not leave the fraternal organization, or the house he inhabited, or the employer for whom he worked, or, of course, the city. Laws governing departure constituted an insuperable obstacle, in principle at least. The young man had to enter his father's trade, marry the daughter of a brother member, and remain practically all his life confined within the fraternal association into which he was born. The organization never released its hold on him, and, even when he died, he could not escape from it. It was the fraternal organization, not the family, that buried the "deceased brother," kept his memory alive, and celebrated his requiem.⁴¹ Thus, even in the beyond, the brother member could not recover his individuality. On All Souls' Day the fraternal organization lit a single enormous candle, not in memory of a particular individual—some obscure Jehannot or Jakemon—but rather, if we can put it that way, in honor of the unknown artisan.⁴²

Political documents constitute our second source of information about the communes. The majority of communal documents deal with rather serious social disturbances that occurred at the end of the thirteenth century. There were strikes at Douai in 1245, and the aldermanic council banned certain associations that seemed seditious. Trouble was noted in Arras in 1253 and in Siena in 1257. From then on agitation never ceased; the revolts and social upheavals that succeeded one another until the end of the thirteenth century were to become one of the main causes of the decadence of the communes. But the complaints that preceded or accompanied the uprisings did not place the blame upon the fraternal organizations; nowhere was indignation expressed against their restrictions upon man's freedom. Like the charters at the end of the twelfth century, the complaints in the year 1300 had to do far more with details than with principles. The letters that the commune of Arras addressed to the Countess Mahaut of Artois⁴³ on the eve of its insurrection accused a certain

40. *Ibid.*, Vol. II: *Documents*, pp. 17-27, 67, 79, 100.

41. *Ibid.*

42. *Ibid.*

43. Cf. J. Lestocquoy, *Patriciens du moyen-âge* ("Mem. de la Com. des Mon. Hist. du Pas-de-Calais" [Arras, 1945]), pp. 137 ff.: "Pièces justificatives."

Mathieu Lanster, industrialist and alderman, of swindling. The insurgents of Douai complained of the meanness and errors of a certain Jehan Boinebroke, also an industrialist and an alderman. The commune's indignation was far more personal than social. The general characteristic of the phenomenon is apparent only when one notes the similarity of the antipatrician disturbances in the communes of Flanders and Italy.

The principal cause of discontent was excessive taxation, but it must be added that the patricians were not reproached so much for taxing the populations heavily as for exempting themselves from taxes.

Disturbances broke out again at Douai in 1275, at Ypres and Bruges in 1280, at Tournai and Provins a little later. According to Espinas, the theme of these revolts was everywhere the same: the petty bourgeoisie's desire to participate in the administration of public finances.⁴⁴ Another source of dissatisfaction was the slowing-down of textile production caused by increased competition among Flemish, Italian, and Champagne industries, and the ensuing crisis, the reduction in wages and unemployment.

Italian cities experienced identical difficulties. Many Flemish emigrants were to be found among the "Ciompi" who rebelled in Florence. The inhabitants of Parma, Siena, Navarre, Pisa, Pistoia, and Florence who revolted from 1255 on demanded that the tax on income be made to apply to the "fat people" as well as the "little people."⁴⁵

These struggles did not lead to the complete eviction of the patriciate either in Flanders or in Italy; its strength was merely reduced. Better-balanced institutions were to emerge; they represented what Pirenne calls "the democracies" of the fourteenth century.

The communal epoch ends at about the beginning of the fourteenth century. While Italian cities evolved toward the establishment of principalities—the power which patrician collectivities had retained earlier came to be concentrated in the hands of the princes—the might of the northern cities decreased as a consequence of the economic crisis and also because of the centralizing policy of the kings of France.

What was the reasoning of the bourgeois of the twelfth and thirteenth centuries? How did they look upon the future of the world? How did they conceive of us, their descendants? Did they experience a metaphysical shiver? Did they wonder what was their place in the universe?

Certainly in the Italian cities there were enlightened spirits who looked ahead, but in the northern cities there was none. Despite the similarity of

44. Cf. G. Espinas, *Les Finances de Douai* (Paris: Picard, 1902), p. 70.

45. Cf. Rodolico, *La Democrazia fiorentina nel suo tramonto* (Bologna, 1905).

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historical situations, despite cultural contacts between Arras and Florence, despite Brunetto Latini's visits to Arras and those of Adam de la Halle to Italy, there was an enormous difference between the Arras school and the Florentine culture of the Trecento.

In both places literature was written principally by the patricians and the elite of the communes. The zone of culture was like the highest level of the atmosphere: only the greatest reached the heights.

In an almost word-for-word way we know who constituted the literary public of Arras. The Confrérie de Notre-Dame des Ardents, an association of bourgeois and poets which directed the entire literary life of Arras, has left us its statutes, a list of its members, and its programs. Nowhere else has the literary activity of a society been so minutely recorded. It comprised about two hundred poets and two hundred bourgeois. The entire patriciate of the city belonged to it as well as people whose names are unfamiliar to us. The Confrérie organized about twelve large meetings a year. It gave Pantagruelian banquets followed by musical and poetic entertainment. Literary prizes were awarded for the most inspired poems. But the public participated actively, collaborating and improvising with the poets. Bourgeois and bards competed in literary contests organized in the Provençal fashion. "Party-games,"⁴⁶ improvised on the subject of polite casuistry, went something like this: if you love a lady, would you prefer that she give herself to you when her thoughts are on someone else or that she give herself to someone else while thinking about you?⁴⁷ Each of the two competitors was entitled to compose three stanzas of eight verses to argue his point of view. Then the two poets chose two judges, who were to decide. Adam de la Halle and Jehan Bretel excelled at these poetic exercises, hundreds of examples of which have survived.⁴⁸

The king of England, the count of Anjou, and counts and countesses from Flanders and Artois who came to consult their bankers participated in these literary sessions as guests of honor.

The introduction of chivalric poetry into patrician circles is quite understandable in view of the increasing desire on the part of the patriciate to imitate the way of life of the noble courts and to differentiate between themselves and the lower classes. And yet there must have been a profound incompatibility between that way of life and the spontaneous tendencies

46. Cf. A. Langfors, *Recueil général des jeux partie français* (Paris, 1905), Introduction.

47. *Ibid.*, I, 203, "Jeu parti," No. LIV.

48. Cf. for the biography of Jehan Bretel, merchant and clothier from Arras, A. Guesnon, *Nouvelles recherches biographiques sur les trouvères artésiens* (1900), p. 29.

of the bourgeois spirit. The party-games afford proof of this fundamental difference. Jehan Bretel was asked: "If your lady promised to bestow her favors upon you only ten times during your lifetime, would you prefer to enjoy them immediately or to space your pleasures?" (The question lacks poetry, of course, but it remains a part of the tradition of gallantry—a tradition that stems simultaneously from arithmetic, logic, and medieval scholasticism.) Bretel answered: "It is better to preserve a pledge from which one anticipates money than to spend it rashly. He lives in happiness who awaits payment"—which is an interpretation of moral gallantry in banker's terms.

The gallant poems written in Arras are at times reminiscent of the misogynic spirit of tales in verse. "One must never trust a woman in anything," Colart le Bouteiller wrote. And Jehan Bodel declared: "Woman is changeable, of a weak nature, and does not deserve the importance attributed to her." All this definitely does away with the cult of women which underlay chivalric poetry.

Moreover, this gallant spirit is, in final analysis, so foreign to the poets of Arras that they could not resist a tendency to make sport of it. Colart le Changeur suggested to a friend a game on the following theme: "I love two ladies both of whom love me, but one tears out my hair while the other strangles me. Which should I prefer?" And the two friends proceeded to discuss this dilemma throughout six stanzas written in the most precious and elegant style.

There is no affinity between the spirit of gallantry and the bourgeois mentality. The "experiment in gallantry" failed, and, after a few years of popularity, gallant poetry completely disappeared. Gallantry implied a morality based upon precepts that were actually antisocial; there was a basic incompatibility between gallant love, which was, by definition, adulterous love, and family morality, which, in bourgeois circles, was very strict. Indignant protests were registered when, in the *Game of the Bower*, Adam de la Halle announced his intention of leaving his wife. Didactic poems composed in Arras during the thirteenth century stipulated very precisely the rules of family morality and the duties which husband and wife owed each other. We have the impression that, in bourgeois society, the fundamental and indivisible unity was not the individual but the family. In the history of communal bourgeoisies the question of personalities was never raised. Acts were the deeds of families and dynasties. Thus the experiment in gallantry was decided by defeat. The patriciate of the north did not find in it its cultural expression.

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In contrast to gallant literature stood realistic and satirical literature which was illustrated by the elite of the commune; it is interesting to observe that a comparison in the ways of life illuminates a social division so plainly. The Game of the Bower, anonymous songs, and Robert le Clerc's "Verses on Death" were violent attacks on the Crespins, the Loucharts, the bankers, the aldermen, the count of Artois—in other words, on the ruling caste. It was a revolt that lacked breadth and, quite frankly, thoughtfulness as well. Such-and-such an alderman swindled the treasury of 20,000 pounds, another reported a false income, a third listed imaginary expenses in his accounts—in short, all of them were rogues and liars. Furthermore, the people were told that such-and-such an alderman, who was supposedly all-powerful, actually was terrorized by his wife and that such-and-such a banker was a drunkard. One great lady was supposedly more stupid than a goose; as for the millowner who possessed an incalculable fortune, he was so stingy that he ate only putrid fish.⁴⁹

Where, among these petty slanders, do we find a revolutionary current or an ideal of liberty? All this was hopelessly trivial. Among the two hundred poets of Arras not a single one was inspired by a deeper vision. Concerned only with detail, they were incapable of transcending the local and the immediate, of rising to the level of ideas.

Of course there was an incommensurable distance between the songs improvised by the people of Arras and the Florentine humanism of the thirteenth century. To what can we attribute this if not to cultural differences? The poets of Arras knew versification and music and had heard the songs and tales in verse that were popular at the time. Except for this, their education was summary. Jehan Bodel thought Africa was situated in the outskirts of Arras, or, in any case, not very far from Auxerre,⁵⁰ and he asserted with assurance that the Saxons had never ceased being Moslems.⁵¹ The only reference to culture that we find in the work of Adam de la Halle was an allusion to the "gesture of Audigier and Graitmberge."⁵²

Bourgeois civilization developed in Flanders on a basis devoid of intellectual tradition. The only sources of culture were medieval, that is to

49. Cf. *Chansons et dits artésiens*, ed. Jeanroy and Guy, Pièces V, VI, XV, and XVIII (Bordeaux: Feret, 1898).

50. For matters concerning the history of the literature of Arras see my study: *Société et littérature bourgeoises d'Arras aux XII^e et XIII^e siècles* (Arras, 1955).

51. *Ibid.*, p. 127.

52. *Ibid.*, p. 208.

say, recent: popular literature represented by tales in verse and the gallant poetry of the noble courts.

The Italian communes developed in a country nourished by cultural traditions, upon soil that preserved the memory of antiquity. Naturally, the influence of gallant literature made itself felt even there; in Italy, as well as in Arras, there were patricians who composed poems about the "delicate folly of love." Bartolomeo Zorzi of Treviso and Parsifal Doria of Genoa wrote songs that were entirely comparable to those of Arras. The *sonnetti burleschi* of Ceccho Angiolieri were the Sienese response to Adam de la Halle's drinking songs. But the center of Italian culture was Florence. There, in Encyclopedist and philosophical circles, one met Brunetto Latini, Cavalcanti, and the already-famous Dante. Brunetto Latini had begun to teach his disciples the finest doctrines of medieval philosophy: Thomism, Augustinianism, the Arab rationalism of Averroës. He taught them the Bible and acquainted them with the writings of Aristotle, Cicero, Virgil, Ovid, Lucan, Statius, Boetius, etc.⁵³ Florentine humanism already had assumed the gigantic proportions of the Renaissance; the period of communal civilization was over.

We can affirm, then, that between the feudal and the bourgeois epoch there was contemporaneity, but not succession. Feudalism and the communes developed in parallel fashion from the beginning of the ninth century, and their first cycle of evolution ended at the same time—the close of the thirteenth century.

Emerging under favorable circumstances, the bourgeoisie created its institutions "in the dark." No over-all plan or project preceded the establishment of urban magistracies. At no time during these four hundred years of history did the patriciate or the lower classes become clearly aware of themselves and of their tendencies. Neither their political documents nor their literary works suggest the existence of social or political thought.

At a moment when the bourgeois communes had attained a sufficiently high degree of evolution to embark upon their own cultural career, they were hypnotized by the example of feudal civilization. For more than a hundred years, unconscious of their own originality, they thought of themselves in feudal terms. Only contact with ancient culture in the Italian cities enabled the bourgeoisie, after protracted searchings, to become aware of its authenticity.

53. Cf. Renaudet, *op. cit.*

THE SEVEN OFFICES

I

There is no end to possible theories of motivation, with their corresponding ways of defining and classifying motives. Our hero can do what he does because he is of some particular religion, race, nationality, social class, historical tradition, occupation, personality type, or glandular make-up or has been psychologically wounded in one or another of the ways specified by the various competing experts. If we say that he did as he did because of the situation in which he was placed, there can be endless variation in our terms for what he did; and the situation in which he did it can be interpreted in terms of varying scope, ranging from a view of his act as done against a background of one or many gods more or less actively concerned with his conduct or against a purely secular background of "nature" ("environment" variously interpreted); or we may place his act with reference to the most minutely particular of circumstances, as when explaining exactly why Mr. Q., Republican, retired, Yale graduate, wearing glasses, and just having quarreled with his wife, turned his car exactly as he did in the particular combination of factors that made up one particular traffic accident. In view of such a motivational jungle, a good basic proposition to have in mind when contemplating the study of motives would be: Anybody can do anything for any reason.

urke

Thus there is a sense in which this article, which would propose one more terminology of motives, is like focusing upon one leaf in a jungle and proclaiming exultantly, "This is *the* leaf. This is *it!*" But, first, by way of apologetic introduction, let us explain our motivational simplification by explaining how we got to it.

Recently, teaching a course in the theory of language, I used as text a book on philosophies of education, *Modern Philosophies and Education*, edited by Nelson B. Henry.¹ Students and teacher alike were struck by the pragmatic fact that, despite the great differences of outlook among the various *philosophies* we considered, when the authors got to the subject of the *pedagogical methods* that they thought implicit in their philosophic positions, they all seemed to wind up by recommending much the same procedure: teaching by means of the guided critical discussion (a loose schoolroom variant of the procedure used by Plato in his Socratic dialogues). Insofar as all the essays had *education in general* as their aim, they could tend to agree on means. But, insofar as each essay differed specifically from the others in its *doctrinal* emphasis (or "orientation"), the same method was reached from different starting points. Thus in effect each philosophy "grounded" the *method* in different sets of *principles*.

The situation suggested a happy analogy with the situation in the United Nations (where, by the nature of the case, delegates with a considerable range of motivational backgrounds agree on a kind of procedural charter common to the lot). And whereas some people are inclined to think that no true peace can prevail in the world until or unless all the world unites in a common set of ultimate beliefs, does not the machinery of the United Nations suggest that nations might sufficiently agree on methods while still greatly differing as to the routes by which they approach these methods? They might all congregate in the same clearing, though they come to it by many different paths through the jungle.

Here would be a good instance of the liberal ideal: a sufficiently peaceful world of many varied motivational centers, each with its own unique character, but all brought together, somewhat like an assortment of portraits in a portrait gallery.

But would this mere conglomeration be enough? Whatever the differences, there must be some notable elements common to the lot; otherwise, agreement even on methods of procedure would be impossible. What, then, of the necessary elements in common? How chart *these*?

1. *Modern Philosophies and Education: The Fifty-fourth Yearbook of the National Society for the Study of Education, Part I.* Prepared by the Yearbook Committee, John S. Brubacher, Chairman. Chicago: University of Chicago Press, 1955.

The Seven Offices

II

First, obviously, there would be the *generically human* element. Whatever else this world forum is, it is a congregation of word-using (symbol-using) animals, assembled from many regions, and relying above all upon the attribute that most sharply distinguishes this species of animal: *Talk*. Just as the philosophies of education, all being systems of talk, gravitated toward a procedure best adapted to a mixture of freedom and authority in Talk (the "guided critical discussion" of the Socratic dialogue), so this body accepts, above all, principles of order imposed upon it by the genius of Talk.

But we cannot stop there. Talk is too universal a human motive. For our scheme of motives, for guiding our notion of what we call the "Seven Offices," we need something less highly generalized, yet without descending to such extreme localization of motives as we get when asking exactly why one particular person does one particular thing on one particular occasion.

To be sure, since man is the typical talking animal, a major concern of education should be the question: "What does it mean to be a talking animal? What are the advantages, and the possible risks, of this particular resourcefulness? To what extent does language free us, and to what extent enslave us, even divorce us from our 'home' in nature?" Education should devote major attention to this problem, unquestionably. Yet there are notable respects in which such a concern is too general, as regards the *administrative* attitude suggested in our title, the "Seven Offices." Talk is too "grand" a motive.

Still with the example of the United Nations in mind, and asking what more specifically might be the end of education, we might next ask ourselves: With what other specifically human faculty, what other distinguishing aptitude, is the speechifying faculty radically interwoven? And the answer is: The tool-using faculty (or, above all, the tool-making faculty—for there is a sense in which many animals can be said to use rudimentary tools, but you have moved into the realm of the exclusively human animal when you get to the more involute stage where things are used as tools for the making of tools for the using and making of tools, and so on). A Detroit factory would have a fantastic time indeed trying to get itself planned, built, and managed without the technical terminologies needed for assembling its equipment and materials, for indicating their proper use, and for keeping the necessary records (since the ac-

countant and the file clerk are as indispensable to a factory as the machinist).

The very ungainliness of the technical words which technology has added to our vocabulary helps us to realize how closely the developments of technology are tied to such resources of conceptualization and naming as go with the ability to use and invent words. So, for our next step, combining thoughts of verbalization in the United Nations with thoughts of the tieup between man as toolmaker (*Homo faber*) and man as verbalizer (*Homo sapiens*), we come to this proposition: The ideal question for education *today* (as distinct from education "always") would be: "How adapt man to the needs of world-wide empire progressively made necessary by the conditions of technology?"

III

At this step an aside is in order. Note that, in going from "tool-using" or "toolmaking" to "technology," while heading in the direction of a concern with "offices," we have also gone from the "universal" or "generic" to the "global." (That is, we are somewhere in between a "grand" view of motives and the *particularized* view.) We use the term "world empire" with relation to technology because technology's vast and ever changing variety of requirements means in effect that areas hitherto widely separated in place and cultural affinity are *integrally* brought together. If a factory in New Jersey establishes some connection whereby it uses, for one of its processes, raw material produced in a remote area of Africa, then to that extent a portion of Africa and a portion of New Jersey are joined in "technological empire." Each area is in effect "annexed" to the other, within the conditions of this transaction.

"Empire," as so conceived, is *not* identical with "absolute rule." We do not imply that one central governmental authority is needed for such shifting kinds of "technological annexation." *On the contrary.* Our term, "technological empire," as so conceived, involves simply the notion that technology establishes, however waveringly, the conditions of world order. And the United Nations would seem to be the institution that comes nearest, as regards man's generic verbalizing trait, to a liberal solution of the problem—though one might grant that in world order there is always at least the *temptation* to round things out by a corresponding centrality of authority, a temptation that should itself be a subject for warnings on the part of educators concerned with teaching man how to dis-

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count such urgent forms of hierarchal imagining and ambition as are especially stimulated by "imperial" situations.

We are now ready to begin.

IV

On considering the "global scene" from the standpoint of technology, our next problem was: How best categorize, or classify, the motivational field *from this point of view*? A notable element in technology itself gives us the cue: the element of *use*. Thus, in what may be a modified brand of post-utilitarianism, we shall approach our subject from the standpoint of use, however broadly we may interpret the term (a broadening indicated by our term "offices"). But there is another matter to be considered. Ideally, for our over-all motivational chart of "offices," we should adopt as many terms as are necessary, but no more than are sufficient.

Along the lines of early Roman concerns with the motives of world order (though the Roman notion of the *orbis terrarum* was more ideal than actual) we take it that the desired terminology of motives should have a strongly *neo-Stoic* cast. And thus, combining the Stoic idea of service with the technological idea of use, we shall guide our choice of over-all terminology by asking, "What do people do for one another?" Once this matter were decided, the next consideration would be: "What kinds of motives help or hinder such (ideally) 'fraternal' services?"

Of the seven "offices" that we thus tentatively propose (in line with the principle that we should have just enough terms and no more), the terms we would propose are not related to one another in a fixed or absolute order of relative worth. That is, they can be evaluated variously, depending upon the point of view from which they are approached. So we must be content with merely listing them, in somewhat arbitrary order, and then we shall comment on them briefly. The basic offices (their number still tentative) that people perform in their relations to one another are: govern, serve (provide for materially), defend, teach, entertain, cure, pontificate (treat in terms of a "beyond").

V

As regards these seven over-all categories for an "official" terminology of motives or, rather, "duties": whereas they are intended to exhaust the field, they are not mutually exclusive. Any particular act may fall on the bias across their divisions, quite as the divisions themselves do not logically

exclude one another. Thus, when Cicero said that the first office of an orator is to teach an audience, the second to please it, and the third to move or "bend" it, his second office would obviously fall under our head of "Entertain," and his third would fall under "Govern." And, ironically, he notes that the orator should lay the *apparent* stress upon the *first* office (of teaching), whereas the oration is actually designed for the *third* office (of swaying). But let us consider the terms one by one, in the order we have arbitrarily assigned to them.

In this scheme, entries under "Govern" would first of all comprise rulers: emperors, kings, tyrants, dictators, presidents, and the like. Here would belong secondarily managers (managements), labor leaders, ward bosses, moderators, chairmen. The term would also be broad enough to include legislatures and judiciary, since they are functions of government. (Possibly the old Stoic identification between "reason" and "rule" led us to place the term "Govern" at the top of our list, since we hope that the proposed scheme of offices will seem reasonable.)

Insofar as we restrict the meaning of "Serve" to the idea of "providing for materially," then obviously the first entries under this head are agriculture, industry, transportation, and the correspondingly necessary clerical work (a vast item in technology, a still much vaster item in technology under capitalism, since with capitalism we should also include under this same head those bringers of glad tidings who are usually called advertising agents or sales promoters—or should they, perhaps, be classed under "Teach," insofar as they "educate" the public to yearn for things?)

In any case, when one is considering the relation in our society between the categories of "Govern" and "Serve" ("serve" in the sense of "providing for materially"), it is good to remember a distinction Thurman Arnold once proposed when he spoke not only of political government but of "business government."² He noted that, so far as sheer *functions* are concerned, a financial dynasty can govern (even while being outside our rules for the political electing of representatives, as the general public cannot vote on the directorship of a corporation, though that corporation can in effect levy *taxes* upon the community, under the guise of the *prices* charged for goods and services). In this sense, business and finance covertly *govern* while they overtly *serve* (a power of the treasury that they further exercise, of course, in their ability to grant or withhold funds for advertising). Labor unions can also exercise a measure of government, insofar as they can affect business policies and methods of production.

2. *The Folklore of Capitalism* (New Haven, Conn.: Yale University Press, 1937).

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Under "Defend" would fall primarily the military and police and secondarily the system of "intelligence" that helps carry out defensive tasks as they are conceived to be (a conception usually narrowed by the distinctive nature of the occupation itself). Insofar as a nation's policies are guided by considerations of "security," the office of *defense* permeates the principle of *governance* ("setting the tone" for them or even actually "taking over"). The susceptibility to such overlapping is indicated in the sheer etymological kinship among the words "police," "policy," "polity," and "politics." Traffic regulation, essentially a function of *service*, is usually performed by police because of need for authority in enforcement (hence, again, the road back to the office of governing).

Under "Teach," besides the obvious main function of formal education, would fall, in general, the institutionalized purveying of information (as with journalism). We have already discussed the ambiguities of advertising in this regard. Speculations in "pure theory" would seem best classifiable under this head; and here would fall those rare but necessary moments in which some few members of a society pause to examine critically the very assumptions or presuppositions on which that society is based (as speculative methods are offered, in the interests of discovery, for systematically questioning principles that are otherwise taken for granted). Teaching has an implied function of government insofar as it inculcates values and attitudes that lead to corresponding modes of conduct. Recall that Plato would have rounded out the symmetry by having the philosopher a king.

In primitive societies there is one sense in which the office of "Entertainment" is very limited, being confined to such functionaries as the tribal bard (and, later, the court fool). But, in another sense, entertainment is implicit in all group rituals (such as ceremonial dances), though they may be rationalized in terms of utility, along lines indicated in the theory of "homoeopathic magic." In our society, where entertainment (including professional sports) has become a major industry, there is the maximum split between activity of the performer and passivity of the observer, as the observer, with many cheap and even free entertainments to choose among, can develop an "amuse me, or off with your head" attitude once possible only to a fabulous jaded oriental monarch.

News, in its role as the purveying of information, would fall under the head of "Teach." But in its role as "drama" it is a form of entertainment, with stories of persons who actually undergo the sufferings and hardships we should otherwise not dare to be entertained by except in fictions. The

news gives us a kind of Roman circus in which we behold not merely imaginary victims but real ones. The attitude is made still more apparent in the case of documentary films and news photos assembled and distributed by organizations that regularly comb the entire globe to keep the reader entertained by a daily authentic recital of other people's miseries. (Or should we, along the lines of some remarks in Aristotle on tragedy, say simply that such items have the appeal of the "marvelous"?) News is an adjunct of government insofar as, by selectivity, timing, and emphasis (by placing and headlines), it forms people's view of "reality" and thus influences their judgment as to what would be the proper or reasonable policy in a given situation. Insofar as news thus misrepresents, it is an adjunct of misgovernment.

Entertainment shares with teaching the possible indirect kind of governance that comes with the shaping and intensifying of such attitudes as have their corresponding role in practical conduct. In this sense we might subscribe to Shelley's final sentence in his *Defense of Poetry*: "Poets are the unacknowledged legislators of the world." The symmetry is impaired somewhat by the fact that people often make quite a dissociation between the aesthetic self and the practical self, admiring in fiction many kinds of action and character that are quite alien to them as citizens. On the other hand, even governments are eager to identify themselves with entertainment, as is indicated by the tradition whereby the President tosses out the first ball at the opening of the baseball season in Washington. Often our political contests make more sense when judged as entertainment than as the citizen's rational choice between governmental policies. And the nature of our advertising mediums strongly associates business with entertainment. However, ideas of entertainment vary with different social climates; and presumably in early New England there was a time when the public got its strongest entertainment from a morbid engrossment with trials for witchcraft, quite as with public executions, either witnessed or read about.

Material medicine and hygiene are primary entries under "Cure," with mental therapy and prophylaxis taking on an ever increasing importance. Under "Cure" would also be included the *care* of those suffering infirmity (in sickness, infancy, or age). The overlap between cure and entertainment was explicitly considered as early as Aristotle's *Poetics*, with its reference to the kind of emotional cleansing (purgation, "catharsis") that could result from the sympathetic witnessing of a tragedy. And one can see how "Cure" overlaps upon our last office, "Pontificate," when one recalls how

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the doctor cultivates his "bedside manner," or the psychologist his air of expert attentiveness, as aids to the curative effect deriving, or thought to derive, from his role as a person of higher authority. (Such behavior impinges upon the dramatizing methods of priestcraft.) As evidence of the way in which "Cure" can impinge upon "Govern," think how successfully the officials in control of the American Medical Association have used their positions to block certain social policies in the name of certain business policies.

Though our terms for the first six offices suggested themselves spontaneously, we had trouble deciding upon the term "Pontificate" for the "last" function. But at least one can see why, whatever the arbitrariness of the order among the others, we should keep this one for the end. At first we thought of calling it the office of "consoling." There is a point beyond which no one can "cure" us—and for such inevitable sorrows of separation, of suffering, and of death the only office left is that of solace, insofar as solace is possible. There is a "qualitative break," the passing of a "critical point," when the doctor lays down his duty and the "man of God" (with funeral artist as subofficiator) takes over. Hence, the distinction between "Cure" and "Console."

But when considering the highly verbal nature of the theological doctrines by which all religious creeds and priestly functions are guided, we felt impelled to think of this last office as essentially *terministic*. Whether or not you believe in a "beyond," this office treats man *in terms of* a "beyond." And such treatment is "pontification" in the sense that it "builds a bridge" between two terministically differentiated realms by viewing the "temporal" *in terms of* the "eternal" (or the "natural" *in terms of* the "super-natural").

"Console" has the momentary advantage of placing stress upon the "peace of mind" that is now so popularly associated with religious faith (in case, with understandable humanitarian weakness, one is not capable of vividly imagining the lot of whatever poor devils may be condemned to the tortures of hell). But "Pontificate" has the advantage of leading more directly into other major duties that are clearly connected with a priesthood, most notably the function of *solemnizing* or *formalizing* (as with officiation at a wedding or at the coronation of a monarch). Here, obviously, a contribution of the priestly role is in the modes of *dignification* in terms of which the occasion is *interpreted* and thereby "sanctioned." And this dignification essentially involves the interpretation of a temporal

or natural event in terms of an ultimate eternal or supernatural ground (a "beyond"). So, all told, "bridge-building" seems the best term for this office.

When we recall that the Roman emperor, by reason of his double role as both pagan deity and head of the secular order, was given the title of *pontifex maximus*, we likewise glimpse the route whereby the priestly office can lead to theocracy. And it is obvious how both the promissory and the admonitory aspects of the priestly office can mesh with the machinery of secular government, insofar as the priestly doctrines may induce a believer to police himself. The old Greek word from which we get our term "therapy" indicates a susceptibility to the overlap of offices, as it applies to employment as a servant or attendant (free employment, as distinct from that of a slave), to divine worship, to fostering or nurturing, and to medical treatment or nursing. Jane Harrison, in her *Prolegomena to the Study of Greek Religion*,³ brings out the word's priestly connotations when she proposes such a range of meanings as "service," "the induction, the fostering of good influence," "tendance, ministration, fostering care, worship, all in one." The word also could be applied to (inferior) military service, to paying court (hence flattering), and to *providing* for in general (a usage that would bring it within the orbit of our second office).

Insofar as priestcraft is the spreader of doctrine, it overlaps upon the category of teaching, though such teaching involves the addition of a terministic dimension that, while it is all-important to this office, may be slighted or even ignored in the purely secular office of teaching. Secondarily, metaphysics would likewise "pontificate," though usually in a somewhat hesitant, or even shamefaced manner, as it seeks to think of man not just empirically but in terms of hypothetical "ultimates" that seem to the metaphysician implied in the nature of human reason. Farther afield, there are vestiges of pontification in mediatory roles generally, whether performed by a priesthood or by secular agents. The technical kinship between religious and temporal mediation is indicated in the traditionally close connection between secular law and supernatural "sanctions."

So much, then, for a general review of our terms for the offices which we perform in the course of our dealings with one another. If these seven terms are well chosen, all human "offices" can be made to fit under these heads, without unreasonable strain. Such would be a neo-Stoically "official" approach to the problem of human motivation.

3. Cambridge: Cambridge University Press, 1922.

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But, when we get this far, there are some related matters crowding in for consideration—so we turn to those.⁴

VI

Note that whereas these seven offices, or "duties," have a motivational slant, they are names for *acts* rather than for the *motives* that lead to acts. One man might govern simply because he felt that he "ought" to; another might govern through a near-mad desire to impose his will upon his subjects; a third would compensate for a secret sense of personal insecurity—and so on. A similar range of possibilities confronts us when we ask about the motives figuring in any of the other offices.

In brief, to each of the offices people bring such traits of personality as may make one person rather than another the best fitted for a given

4. Aristotle's *Politics* is built primarily around his list of political systems. But at two points he offers lists of what he considers the "necessary parts" of a state. The earlier list (iv. iii. 1290^b 21-1291^b 14) contains eight "parts": (1) farmers, (2) craftsmen, (3) traders, (4) manual laborers, (5) warriors, (6) councilors and judges for litigation, (7) the rich, and (8) public servants.

His first four classes would fall primarily under our second category: "Serve (provide for materially)," as would his seventh. His fifth would be our third ("Defend"). His sixth would probably fit best under our heading of "Govern," and similarly with his eighth (in their administrative role they are perhaps the beginnings of what we would now call a "civil service" or "government bureaucracy"). Aristotle also notes that these various offices may be performed by the same person. Indeed, in what looks to me like a solemn academic wisecrack, he notes that all men incline to think themselves capable of carrying on most offices, except that they cannot be both rich and poor (hence the stress he lays upon wealth as the main mark of class distinction).

Our last four categories ("Teach," "Entertain," "Cure," "Pontificate") are omitted. However, in his later and shorter list of occupations, "parts" or *erga* (vii. vii. 1328^b 4-1328^b 24), he adds the priestly function. According to this list, the state's indispensable needs are: (1) food; (2) handicrafts; (3) arms; (4) money; (5) (or, as he puts it, "fifth and first") religious service; (6) ("most necessary of all") machinery for dealing with questions of citizens' rights and interests. Here, by condensing, he has covered more ground under fewer heads. But "Teach," "Entertain," and "Cure" are still omitted.

Perhaps such modern institutions as publicly supported hospitals and "socialized" or semi-socialized medicine now sharpen our notion of "Cure" as a "civic" function. Also, of course, whereas Aristotle was thinking of the "necessary" offices of a *city* specifically, our list is more broadly conceived (in terms of what people do for one another *socially*). And perhaps our long familiarity with compulsory education (including "propaganda" and "indoctrination") sharpens our awareness of "Teach" as a basic "office." But it is surprising that he has omitted "Entertainment" as a function of his city, in view of what he has written on the "catharsis" supplied by music and poetry and in view of the fact that the Athenian stage was a civic institution.

However, the occupations that are omitted from these two lists are duly considered in the *Politics* as a whole, as they were also in Plato's *Republic* (about Book ii of which Aristotle's discussion in connection with his first list gives a somewhat misleading idea). There Socrates gradually builds up a state by beginning with a minimum of indispensable social functions for dealing with man's sheerly bodily needs. Drawing an analogy between the person and the state, Aristotle holds that Plato's view of primary functions stresses the *soma* at the expense of the *psyche*. Hence, according to Aristotle, even more important than considerations of material utility would be such spiritual parts as the judicial, the deliberative, and the military.

ministry in some particular situation. Also, the seven offices require reciprocals: a certain kind of sovereign would be best suited to a certain kind of subjects; a certain kind of entertainer needs a certain kind of audience; the psychologist who cures Mr. A may not himself have the kind of incipient morbidity that best equips him to cure Mr. B, and so on.

Behind our neo-Stoic view of human offices there lies the muddled area of personal motives that usually have their start in *familial* situations. And while such situations reflect the over-all *public* situations of which they are a part, they are experienced by the child primarily in *personal* terms. Thus, at first, all these seven offices are felt to be performed exclusively and variously by persons within the immediate family or close to it (like the family doctor). Gradually, persons *from outside* (from "beyond"?) are differentiated as to office (the workman who comes to repair some mechanism and makes mysterious motions; the policeman whose functions as "defender" is usually thought of, rather, as that of *punisher*; the circus clown, whose simplified face is a kind of face-in-general, as, indeed, is the face of Great Man barely glimpsed while his limousine whisks past in silence after the motorcycle escort had bubblingly prepared the way; the robes of the man of the cloth; and so on). Here we are back among the whole jungle of human motives that is lying about us however we may reduce our terms for the basic kinds of office.

In this regard, think again of Cicero's tract *On Duties* (*De officiis*), which he wrote when deprived of office by the death of the Republic. In his discussion of stately offices, Cicero was mainly concerned with the *virtues* that best fitted a man for the responsibilities of citizenship. Thus, he devoted the major portion of his book to discussing the "four sources of upright living" from which "all duties flow." These are: prudence, justice, high-mindedness, and self-control (while he secondarily considers the motives that lead to the perversion of these virtues). Few would deny that, if such traits of character were in the saddle, all would always be well with the state—particularly since Cicero takes great pains to "prove" (to his own satisfaction, at least) that true expediency is also to be equated with these four virtues, whereas we might otherwise think of expediency as running counter to them.

The buildup is of a sort that attains its culmination in such "strength" as a sculptor would seek to convey by an equestrian statue in a public park. For they are the kinds of traits that, rightly or wrongly, the general public associates with the historical figures whom it clamors to acclaim as its leaders.

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Typical modern theories of motivation, along the lines of Pope's formula, "As the twig is bent, so is the tree inclined," would favor a quite different direction when speculating on the derivation of man's fitness for office. They would look for the future architect in the child playing with his blocks; or for the future policeman in the young delinquent who was given the task of keeping other delinquents in line; or for the world ruler in a morbid child, physically weak, deformed, undersized, or otherwise clearly with a bad mark; and so on.

Yes, in the alembics of history, alchemic transformations of that sort will most likely figure, too. Christianity will have done much for theories of motivation if it but leaves us with the suggestion that, when looking for the handsome prince, we should first of all look for the ugly duckling. Or is this a lesson learned from paganism too? In any case, we note its design in the principle of the Beatitudes.

Cicero would incline to skip the paradoxical possibilities—yet they were all about him, beginning with that very book of his on civic virtues. For it was written to his no-good son, who doubtless knew, as perhaps only his wife knew better, that there was something radically questionable about the old man's oratorical tributes to the equestrian virtues, however true it might also be that the state could prosper only if the virtues he extolled were somehow in the saddle. In any case, about a year after writing his tract *On Duties* the great Cicero was slain, and by assassins apparently hired by the avenging figure (Mark Antony) to whom our sweet Shakespeare subsequently assigns a noble stately role in the tragedy of *Julius Caesar*.

VII

How round things out? Quite as an "official" theory of motives subsumes a purely "personal" realm (generally associated with the "familial" experiences that have their roots in the purely *natural* "services" involved in the generation of offspring and that most impress themselves upon the human animal in the period of emergence from infancy into the early years of childhood), so this "personal" realm in turn shades off into a realm of "prehistory" that requires its own kind of "pontification," if we are to build speculative bridges between the human person and the purely "cellular" organism out of which, according to Darwinian thinking, it has evolved.

Here all is a jungle, literally. And the best we can do would be to propose a fanciful, quasi-scientific myth, designed simply to "give the idea"

of what might be said to lie behind the animality of man the political, word-using, toolmaking animal. How might the offices of the human community be erected atop the purely "natural" community of the human organism, considered as an animal that somehow retains within itself the motivational traces of its development from "simpler" and "lower" biologic forms?

First, we might imagine an original faint distinction between pleasurable and painful impressions, beginning perhaps in the distinction between a metabolic process that proceeded without interference and one that was in some way impeded or disturbed. Possibly, at this stage, the condition of "awareness" would be greater when the process was disturbed than when it proceeded without interference. That is, "pain" might be "prior" to "pleasure," or stronger, in the sense that the organism would be more aware when something was wrong than when everything was right.

For instance, after a meal, one is more aware of his digestive processes if he gets indigestion than if everything proceeds smoothly; in fact, the "natural" response to a state of digestive euphoria would be for the happily digesting organism to fall asleep. However, one might argue that such "sleep" applies only to the "higher" centers of consciousness and that each of the cells involved in the digestive process may be profoundly gratified and humbly glowing with its own kind of pleasure, the perfection of the digestive process itself being sufficient evidence that the cells are as vigorously "awake" as the vibrant insect life of a swamp.

In any case, whether one thinks of pain or pleasure as primary here, or thinks of them as, from the very start, equally implicating each other, our notion is: The general "feeling tone" that adds up to either pleasure or pain would begin with this preponderantly internal functioning, though its internality would be of a sort that enabled it to have a close reciprocal relation with its placenta-like environment (a relation that our body probably comes nearest to enjoying when rested, sufficiently fed, sexually appeased, free of danger, without ailments, and near water, on a balmy day in spring).⁵

Such rudimentary *pleasure* would also presumably be indistinguishable from the kind of satisfaction that was later to get the name of "love" for an object deemed "good."

Perhaps the essential difference between "pleasure" and "love" is suggested by Stendhal's definition of love as a "promise of happiness." That is, pleasure is a state that *just is*, whereas love involves the element of *desire*,

5. To round out the pattern, we might add: "and just having received news of a legacy."

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a sense of union with something with which one is identified but from which one is divided. Insofar as the organism could be estranged from its pleasurable circumstances, its metabolic process would give rise to a *need*, a need for some element now experienced as more or less *external* to it (as with a desire for more food or shade or warmth than were at that moment actually available).

By the time biological differentiation had developed to the point where there were vertebrate animals preying upon one another and competing with one another sexually, the promissory factor would make readily for complicated situations whereby the immediately painful can have its own kind of pleasure, if the present pain is a sign of future pleasure. Or, insofar as rage equips for combat, competitive "love" contains the rudiments of "hate." Or, again, as with parental care of offspring, the kind of natural "office" that we would associate with "love" points toward the "hate" category as regards the parent's tendencies to protect its offspring by ferocity.

If love leads via fight to anger or hate, pain leads more simply to fear. Aristotle makes much of the point that anger and fear are mutually exclusive, but fear can become pleasurable because pain can. (Thus Huysmans in *A Rebours* depicts one perverse route whereby fear, in becoming pleasurable, serves his hero as an aphrodisiac. Nor should we forget the kind of fear associated with the "tragic pleasure.") Further, while the perfect behavioristic counterpart of anger is attack and the perfect behavioristic counterpart of fear is flight, in some species there is also an intermediate state, a kind of sheer immobilization, that happens to serve as a protection insofar as immobility is a way of escaping detection. It has been suggested that this condition is the biologic origin of catatonia, which can also be induced by self-defeating situations, as when conditions are so arranged that a movement which would "naturally" make for the obtaining of food serves rather to push the food beyond reach.

But the talk of "catatonia" might serve well as the step from speechless organisms to the language-using species. For language is itself a kind of midway stage, the sheerly verbal blow and the sheerly verbal flight falling short of these acts physically. With our words for things, in the poet's images or the philosopher's ideas, we somehow half-possess the entities they name. Words are a mediatory realm that joins us with wordless nature while at the same time standing between us and wordless nature.

Once words are added (with the word-using faculty that a more honorific terminology would call "reason"), the purely biological nature

of pleasure, pain, love, hate, and fear is quite transcended, since all are perceived through the coloration that the inveterate human involvement with words imparts to them. And the same is true of all sheerly bodily sensations, which are likewise affected by the new order of motivation made possible (and inevitable!) once this extra odd dimension is added to man's natural animality. From that point on, no matter what man's motives might be in their nature as sheerly animal, they take on a wholly new aspect, as defined by the resources and embarrassments of symbolism.

You could state the matter bluntly thus: Pleasure and pain can no longer be exactly what they would be to us sheerly as animals, and similarly with love and hate (or fear), once we approach problems of "acceptance" and "rejection" through the genius of that specifically linguistic pair, "Yes" and "No" (to which we should add the strategic midway stage of "Maybe"). With the negative, "conscience" is born (as attested in the biblical formula, "Thou shalt not . . .," conscience being the power to say no to the self, deep within the self; or equally deeply it may say no to the thou-shalt-not's of others).

And the same would be true of our sensations generally (with their range from mere neutral "recording" to the extremes of pleasure and pain) and of imagery generally (with its range from mere neutral attention to the extremes of love, hate, and fear): all this variety of bodily and mental awareness would be colored by the "conscience" (the genius of that exclusively linguistic marvel, the negative).

And the "positives" of "conscience," as translated into terms of social behavior, are the Seven Offices, involving the many ways in which these offices can become perverted.

The ultimate perversion (or, more accurately, the point at which we find it hardest to make sure just where the good office ends and its perversion takes over) comes from the fact that the various offices are made possible only by the regularities of *order*; and, the more closely you scrutinize the conditions required by order, the surer you are to discover that order is impossible without *hierarchy* (a ladder of authority that extends from "lower" to "higher," while its *official functions* tend toward a corresponding set of *social ratings*).

Call this design "Hierarchy" when you are feeling friendly toward it. When you are feeling unfriendly, call it the "Hierarchal Psychosis"—or, more simply, "The Scramble"; or still more simply, "The Rat Race," which is what the conditions of empire add up to in their drearier manifestations.

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In sum, then, problem-wise (as seen from the standpoint of the Seven Offices):

1. The over-all aim of secular education would be to discover just what it means to be a symbol-using animal. (Such would be the "grand" aim of education.)

2. The basic educational problem at this stage of history would be: How best adapt the symbol-using animal to the conditions of world empire that are being forced upon us by the irresistible "progress" of technology? (Such would be the "global" aim of education.)

3. Finally, beginning with either of these propositions: to locate the typical source of individual anxiety, in not more than three moves we should get to neo-Stoic contemplation of the "Hierarchal Psychosis" (or "Rat Race"), that is a reflex of the need for a pyramidal or ladder-like order in human "offices."

NOTES AND DISCUSSION

Adrienne R. Weill

REFLECTIONS ON MATTER AND MATERIALS

Our representations of the solid state have evolved more and more rapidly as the physicist has had at his disposal more deeply penetrating radiations with which to explore it. The successful use of the optics of luminous rays was followed by X-rays, then radioactive rays, including neutrons and electrons, leading to increasingly perfected models of crystalline structures characteristic of the chemical composition and the physical properties of matter.

To become materials, raw matter must follow a certain design. Far from being a degradation, technical use is a promotion insofar as it implies a body of precise knowledge and not an arbitrary or conventional choice. The diamond is a delightful substance indeed, but it is a choice abrasive as well. To the jeweler it is a sumptuous and unchanging stone, of a high price, which (to bring out its brilliance) justifies an artistic cutting, ably executed according to empirical rules with no direct recourse to theoretical knowledge of its structure. For the industrial manufacturer it is an

Translated by James G. Labadie.

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abrasive so hard as to cut all other substances while showing in itself almost no signs of wear. And the metallurgist knows the sapphire as a substance which, when finely divided into particles on the order of a twentieth of a micron (the micron is the thousandth part of a millimeter), can be used to polish the hardest metals, like cast iron or some special brasses, and to provide, on surfaces from which the roughness left by the cutting tool has been removed, a microscopic view of the structure.

Whatever application may be envisaged, whether it be an appeal to taste or even to a very simple need, a purely empirical knowledge of the substance is sufficient for attaining the desired aim: the artisan will be able to achieve excellent results whether in the cutting of a gem or the abrasion of a surface by simply mastering the technique employed.

But let us suppose that because of some need, as may well occur in a world in which more and more complex techniques are required, the engineer seeks a matter harder than the diamond or capable of conserving its qualities at temperatures above $1,000^{\circ}$ C. Nature will furnish him no satisfactory substance. He will then need to make a complete inventory of what he knows: to find out why the diamond is hard and how its hardness is acquired and may be increased—in short, to produce an improved version of a diamond.

The synthesis of the diamond, despite the hopes raised by the work of Moissan—remarkable in other ways—still belongs, though perhaps not for long, in the realm of mythology. The very undertaking of such a venture in the nineteenth century was, even for a scholar of fine reputation, to lay one's self open to criticism, to color with venality that "devotion to science" which seemed from the outside to be a condition essential to progress, if not to salvation.

Today, however, it seems absolutely normal that the resources of the greatest of laboratories be mobilized, in full view of all, for a technical improvement. Thus several months ago a matter harder than diamond was made in the United States; in the research laboratories of General Electric was born "borazon," legitimate child of scientists who successfully synthesized a matter of the same crystalline structure as the diamond, endowed with the same properties of hardness, and, in the bargain, enjoying important advantages over the natural product.

How did this happen? The broad lines of the development follow. Through examination by means of the diffraction of X-rays may be observed the manner in which are disposed the constituent elements of matter, atoms formed of a nucleus and the surrounding electrons. The

atoms of carbon may be assembled in two crystalline forms, quite different in appearance and in properties. Graphite occurs naturally in black lamellated strips, lightly enough linked with one another to slip apart under slight pressure, somewhat like superimposed pages, while diamond, radically different to our eyes and senses, is hard, transparent, limpid.

Now the examination of graphite by crystalline analysis leads to a model of structure in which dense layers of atoms are held together by forces much less intense than those, equal in all directions, which hold together the same atoms of carbon in the diamond, according to a pattern of higher symmetry.

So, beginning with a chemical compound of the same crystalline structure as graphite, boron nitride, the American researchers (the word "savant" is scarcely used today) succeeded in transforming it so that the interatomic bonds were established in a different mode, precisely that of the diamond. This new matter, borazon, is possessed of a hardness superior to that of the diamond at ordinary temperatures, and this property resists much better the destructive action of heat, so that it loses none of its effectiveness above $1,800^{\circ}\text{C}.$, while the diamond yields at about $900^{\circ}\text{C}.$

The progression from how to why, the development of *Homo faber* into *Homo sapiens*, is not always so clearly seen as in this case. There is no more reason to be proud of a successful venture than to be ashamed of a failure. The very life of the laboratory is made up of positive and negative results, and will be, so long as our knowledge remains insufficient to our needs and our hopes.

At any rate, we are constantly more aware of and alerted to how much we are lacking in the way of theoretical "pigeonholes" in which to classify the fruits of our experiments—or, what is worse, of how deficient are the pigeonholes we once thought to be well devised. How many times is the indispensable constant missing in the reservoir of our knowledge? And when we attempt to calculate the constant, it escapes us, changes, so that the task we were attempting to narrow down becomes even broader in scope.

One measurement error, yesterday insignificant, may, by reasoned criticism, lead on to a new path today; another line on the diagram is placed outside its theoretically assigned limits, and we have to open a new slot to account for this most recent observation. Examples in which a new and freshly painted pigeonhole, if we dare continue the metaphor, is opened precisely to receive the results of a test are still rather unusual—but we shall have occasion to cite remarkable contemporary instances.

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Let us stop first at the most frequent case, that in which the experiment is made prematurely in the fullest sense of the word—before the mind is ripe. Returning to the centuries preceding the Christian Era, let us follow some Greco-Roman vessel carrying its cargo of amphorae to ancient Massilia. A submerged wreck lies off Marseille, near the isle of Grand-Congloué, explored and partly raised by Commander Cousteau and his associates. The ship's deck was protected by lead plates fastened with copper nails.

This copper—which the writer has had the good fortune to analyze—is of a purity we find astonishing in the twentieth century, aware as we are of the difficulty of extracting from oxydized and sulfurized ores a metal which, left to itself as matter, or left to its fate as a manufactured object, will resist corrosion (a more fitting word here might be “corruption”) in proportion to its purity or absence of poisons. But this is on condition that it exist by itself. The proximity of lead in a saline atmosphere is fatal to copper. Thus the archeologists who followed the under-seas expedition noted with what care the shipbuilders of the time sheathed the copper in lead “to avoid the voltaic effect.” What represented for Volta a pile, a source of energy, did not fail to harass seriously the shipbuilders of Delos, and it took two thousand years for the obstacle to be turned to the advantage of the observer. If, then, in the daily practice of our own laboratories we still have many little nails to sheath, we may at least hope that there is sometimes an excellent reason for this, even though it may try our patience.

But let us return to the models of crystalline structure revealed to us by X-rays. For certain materials such as ordinary metals, the pattern is extremely simple. Symmetry is highly developed. Around a well-determined axis the figure in space takes the identical position two, three, four, or six times in a complete turn. The axis is said to have binary, ternary, quaternary, or hexagonal symmetry. And our knowledge is well represented by this symmetry—so well, indeed, that it is then easy to communicate by a tridimensional lattice, a model made of small balls and wire.

While ordinary metals, with few exceptions, are of simple and well-understood structures, the model becomes complicated as we approach the representation of organic compounds, whose molecules may contain thousands of atoms. And every virus, every protein, becomes a little world, the broad lines of whose skeleton we are only beginning to understand.

But when the metallurgist visits the galleries of the Palais de la Découverte in Paris, or any other institute of that kind, if he acquires an easy

familiarity with these models of matter, if he can classify mineral species according to a readily accessible geometry, will he be better equipped to forge new materials? Without going this far, is he likely to penetrate deeply into the mechanisms of materials traditionally used for centuries without trying to substitute for them equivalents which are functionally more adequate?

The question took a sharp turn about twenty years ago. Intoxicated by successes achieved through diffraction of X-rays, crystallographers saw in their models an ordered representation of matter, well-arranged atoms, general laws applicable to structures of equal symmetry. For the simplest, such as those of metals, they knew clear and precise facts having to do with their mode of crystallization or the mechanism of their deformation or that of breaking down through cleavage. Reference could be made each time to that plane of the model with the highest density of atoms. In other words, in normal growth, the crystal was limited by those surfaces in which the atoms are nearest to each other. In case of constraint: traction, for example, deformation manifested itself through mutual glide of these same planes, whether one dealt with zinc or cadmium, where there is but one series of dense planes all parallel, or with copper, aluminum, silver, or gold among others, where there are three equivalent directions of planes of maximum density.

Forgetting for a moment what might separate geometry from reality, the savant took possession and control of matter and then tried to force nature to conform to the model in order to produce materials endowed with precisely those physical properties associated with the three-dimensional schema of the structure.

We mentioned earlier a striking example of the success which may develop out of research conducted in such a manner. Many others might be added, less simple, and of varying importance, from the vulcanization of rubber to the plastics and man-made textiles industries; in between is the permanent wave, practiced in innocence by the coiffeur. But let us return to the model of metallic elements and see what the blacksmith found to his satisfaction—and to his dissatisfaction.

The model can be identified with the material only insofar as the latter is present in appreciable volume, at least several cubic millimeters, in a perfectly regular manner. The sole condition is that in the representation, which consists in repeating as many times as necessary and following three axes in space, the elementary pattern conserves its orientation. One is then said to possess a single crystal, and it is correct to attribute to this mass the

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characteristics recognized in the model; for example, the proper directions for the propagation of light if one is dealing with calcite—the Icelandic crystal described by Huygens—or, if dealing with a metal, the directions of easy glide.

Now the metallic materials in current use are not single crystals, and nature, except in moments of rare prodigality, does not provide them in a state of regularly organized matter. When man succeeds in extracting metals from the minerals in which they are disguised as oxides or sulfides, for example, he has at his disposal a liquid mass at high temperature which, on cooling, gives an agglomeration of more or less regular crystals, of highly variable dimensions, depending on the nature of the element and the treatment it has undergone.

The model is identified with but one of these grains, whose mass constitutes a polycrystalline aggregate, endowed with mechanical properties quite different from those of the monocrystal. In fact, a glide, for example, if begun in a grain, will propagate itself under the same force only insofar as it encounters no obstacle. But, between grains, frontiers separate two crystalline domains of differing orientations, so the glide has a much better chance of being stopped by the boundary than of continuing to spread. Thus the polycrystalline body offers much greater resistance to stress than does the monocrystal.

To compare the intrinsic properties of the metal in the material state with the structural schema, physicists have tried to produce the single crystal in a free state. They have successfully fashioned small bars of zinc, cadmium, aluminum, iron, copper, or still other metals and have compared this materialized model with the ideal structure (that represented by the model of balls and wire—the result of their analysis) for which the calculations of forces of binding and decohesion were valid.

As perfect as their single crystal was, it never conformed to the schema, at least not quantitatively. In its first approximation it followed the established rules: monocrystalline aluminum, carefully purified, bent under its own weight, traces of glide wrinkled its surface. Cadmium and tin, in round bars, were easily stretched, their sections flattened at the same time as the already known "cry" was heard, but identified this time with the separation of two atomic layers, thus with a mechanism millions of times lower than the limit of our sense perception.

What was no longer at all acceptable was the fact that the stresses brought into play were several hundreds or thousands of times inferior to those which had been calculated with all the already considerable re-

sources of the physics of twenty years ago. So the ideal matter (the metallic single crystal of the time did not seem to figure properly among the materials), the matter of the physicists, corresponded neither to the model nor even to an embryo of something useful. It was an entity apart from nature and apart from the manufactured object.

Here, then, was the physicist at an impasse, the engineer puzzled, and, if some inspector of scientific method had passed by, he would rightly, under the circumstances, have given free reign to pessimism.

But some farsighted minds, assuming an intentional naïveté, asked themselves a question which today can only too easily be called simple (the comfortably placed historian enjoys a clear advantage over the laboratory worker). Instead of rejoicing at the sight of markings on the surface of the single crystal bars, they asked why certain of the billions of atomic planes had moved, while others had apparently remained in place.

Still mindful of the difficulties inherent in the preparation of the monocrystal, of all the precautions necessary to avoid the accidental growth of a grain-boundary here, a twin or a kink there, the physicist sought to discover whether through some stroke of bad luck his crystal, perfect as it might appear, might not contain some defects. The working hypothesis retained by the specialists was a double one: on the one hand, the presence of defects; on the other hand, the localization of these defects in the glide planes. In other words, the structural defect, just beginning to be taken into account and not yet identified, was already laden with responsibilities.

Moreover, if the data are closely examined, or, better still, if the attempt is made to construct a structural model with balls and wire—and let those who do not ordinarily indulge in three-dimensional games be warned that enormous quantities of wire are needed—glaring blunders readily susceptible to the physicist's criticism are apparent. In other words, the field of forces at rest represented by the static model is not to be thrown into disorder any which way.

In a scientifically established order the modes of defect are strictly limited by what our physical knowledge imposes. A violation of the minimum interatomic distance of the model is indicative of enormous compressions, causes of explosion; if, on the other hand, these distances are exaggerated, the model sublimates and becomes gaseous. If only certain joinings of the three-dimensional model are retained and others suppressed, we will have thin sheets or fibers, a paste, or a liquid. The schema is not a game of wits; it is a material symbol fraught with significance.

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And yet, if there is a defect, it must be invented. I say "invented," for to discover it we need something we do not yet have (although we are approaching it)—the possibility of observing the individual behavior of atoms.

Despite the restrictions imposed by the laws of physics, the scientist found two solutions, which, thanks to these restrictions, not only were exactly authenticated but were found to be fruitful beyond all hopes. The first type of defect consists in supposing that, at the time the links are juxtaposed to form the model, the artisan—whether it be nature or the physicist—is going to interrupt a lattice plane in the center of the mass. Instead of being formed of regular planes, all parallel and of identical surface, the model—or the crystal—will contain, for example, an extra plane in its upper part, one less in its lower part. The result in the structure will be what architects call a "squeeze." The upper part will be slightly compressed, the lower distended, but at a slight distance from this "dislocation" nothing more will be noticed.

But this slightly disordered model will enjoy completely different properties from those of the perfectly ordered model. The array of atoms terminating the plane of insertion will not be joined to its neighbors quite so rigidly as the one having an exact opposite. A very slight push will direct it toward a neighboring plane, which in its turn will leave half a plane without an opposite number, and so on. The effect will somewhat resemble that of a row of standing dominoes knocked down one by one when the first is upset against its neighbor.

And here we see the imagined mechanism giving a theoretically irreproachable interpretation of the glide phenomenon, observed in the monocrystal, save that, as meticulous experimenters will be quick to point out, it all happens in the mind of the physicist, while we, in the laboratory, observe neither the unhitching of the atoms nor the engagement of the glide.

Theoreticians do not stop here, but imagine another type of defect, a bit more difficult to achieve with wire. But it is achieved and proves most instructive. Suppose that we did not know how to construct the planes very well—here a pattern of squares with balls where the wires cross. When we superimpose these planes, which, for example, will all be raised toward the top, beginning with a row which we see end-on, like the middle of the magazine we are reading when the right-hand page is raised, we will no longer be able to follow a row from left to right without being at a given moment halfway between planes n and $n + 1$. Thus

our progression in the model will no longer be that of a circle in a plane but rather an unclosed circuit; the curve leads us to return not to our point of departure but to a point above or below. There will then be at the upper surface of the crystal a sort of monoatomic step linked to this helical, or, more exactly, to this screw dislocation. A precise meaning can be given to this invention by showing that it is concretized by a vertical push involving but one part of the crystal.

Nothing stops the theoreticians once dislocations have been invented; they study all the evolutions, all the variations according to the particular structures of the metals, and in the well-established order the dislocations find themselves at home.

There would indeed have been no possibility of reasoning about disorder if one had not already been formed in the school of order. Sometimes (as in electricity, for example) a discovery leads at least to the temptation to upset for teaching purposes the chronological order—to begin with the electron would be in a sense more rational than to begin with the laws of the establishment of electrical current. But for matter this is not so; on the contrary, the study of disorder conserves and validates the ordered model. This is true to such a point that, ever more sure of themselves, crystallographers sought a representation less fixed than that of the model of balls and wire to illustrate and communicate the results of the systematic analysis of disorder and of movements facilitated by defects of organization.

The success of the dynamic model merits our attention for a moment. It consists of a two-dimensional analogy, constituted by a raft of bubbles blown in a viscous soap-based solution. In the absence of any agitation the bubbles are arranged side by side, like the atoms of metal in the most closely packed planes of compact structures. Thermal agitation, which in matter causes atoms to oscillate around their rest positions, occurs when a glass rod (an agitator, in laboratory language) disturbs the raft of bubbles. Point defects are thus created, by the bursting of bubbles, for example, and result in more or less unstable dislocations which, depending on conditions, are propagated or anchored in the network. Springs may be maneuvered to produce shearing or compression on the raft. So we witness a cinematographic recording of the phenomenon with all the defects theoretically foreseeable. Whereas the theory had been judged overly daring, its illustration not only confirms it but even extends it, showing, for example, cases of reflections of dislocations by grain boundary which had been too daring to be advanced.

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One of the most remarkable points brought admirably into evidence by the model is that of the possibility of stable configurations, of organizations of dislocations in arrays forming a well-defined type of boundary between two slightly misoriented domains.

About 1948, before any direct experimental verification of dislocations (the historian exerts his rights again), physicists of metals suspected this mode of arrangement and gave it various names; that of "polygonization" was to prevail, well representing the break in arrays of atoms which was substituted for distortion and which resulted from the rearrangement of the dislocations among themselves. At the same time an age-old problem, on which progress had been made for about a hundred years but which was still not completely understood, came again to the fore: the problem of crystal growth.

Nature, at once prodigal and miserly, furnishes man with such magnificent crystals as the diamond, quartz, and calcite; but, as soon as society accepts them as materials, it demands more and better ones. For optical instruments and telecommunications, then, the laboratory was called upon to provide these (non-metallic) single crystals, not always easily, but fairly satisfactorily produced by artisans. Let it be understood by this that, even though production were extended to the industrial level, the laws of growth could be determined only in practice. But this was fortunate, as the theoretical physicist could but offer laws accusing the solid of a reluctance to grow, which was well calculated to discourage any productive enterprise.

No matter how careful the calculation, from the simplest case—a monoatomic crystal growing from its slightly supersaturated vapors—the edifice progressed badly. There was imagined a layer growing on an already formed block, thus providing a step on which atoms of vapor came to link themselves to the already fixed atoms. To increase the speed of the phenomenon, the atoms reaching the surface must have more chances of being caught than released. According to a reasoning practiced (if not invented) by Huygens in its reciprocal form to interpret the cleavage of spar, the situation was improved by endowing the growth front with zigzags and kinks, offering the migrant atom not only two neighbors but three or four, each ready to provide additional bindings. The calculation then offered approximately the representation of the growth of a layer. But, once the layer was finished, a favorable fluctuation must be awaited in order for a new nucleus to be constituted, which, surrounded by its

kinks, might serve as the beginning of a new layer. This delay, imposed by the knowledge of physical laws, caused all calculation to fail.

One of the promoters of the theory of dislocations, F. C. Frank (many others should really be mentioned, as science today has become so much a collective work), observing the struggle of his colleagues at the University of Bristol, suggested (perhaps half-jokingly—one never knows how great things begin to take shape in fine minds) that they introduce dislocations into their crystal. Things had reached a point where the most intuitive effort could not be neglected.

Soon the suggested idea took a very serious turn. If, indeed, a screw dislocation were formed within the growing crystal, a supporting step for migrating atoms would develop precisely on the surface. Even if the surface were covered with a layer of atoms, the step would survive, rather like the curb along the sidewalk under a layer of snow of its own height.

Suppressing the waiting period between layers, the new hypothesis allowed for a calculation entirely in accord with reality and implied, in addition, very precise configurations. In fact, as we have noted, the screw dislocation has a very definite point of emergence, thanks to its geometry. This point is anchored, and growth originating from the supporting step passing by this point can therefore only take place as a revolting spiral. Another sort of figure is imagined, one in which two neighboring dislocations operate jointly. Instead of an open spiral, the surface of the crystal will appear as covered with rising terraces, closed on themselves, with a repetitive mechanism functioning at the center.

At the time when Frank's schemas were proposed, no one recalled that exactly twenty years before two young scientists of Columbia University, Menzies and Sloat, had published pictures of magnificent macroscopic spirals observed on crystals of silicon carbide (a very hard matter used as an industrial abrasive) and had accompanied their photographs with this comment, typical of the philosophy of the man in the laboratory, who is typically an unwitting philosopher: "It can be seen that we are here in the presence of a perfectly definite fact. Generally our theories are quite clear, while the facts are much less so. Here the exact opposite is true."

Once again a premature experiment was waiting to be classified a posteriori. The screw dislocation was not born until around 1939, and its application to the mode of crystal growth was envisaged in 1949, while even the boldest physicists were quite reserved about the possibilities of

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experimental verification. And twenty years before the proof had been available!

And at the very moment when the theory of spiral growth was being communicated to an audience of specialists at the University of Bristol, a young scientist from London, skilled in microscopic examinations, offered at exactly the best chosen psychological moment an indisputable proof of spirals conforming in every way to Frank's schemas and discovered on the surface of beryl crystals. These spirals were a controversial subject because of their very perfection. Some, who had as they said "been observing spirals all their lives," did not readily accept the theory of dislocations, preferring that of swirling eddies of vapor near the crystal in formation. Others were disturbed to see appearing within the reach of the optical microscope a phenomenon whose source went back to interatomic distances. As a matter of fact, it was rather difficult to prove that the spirals observed could correspond to monoatomic steps. But subsequent experiments showed that, precisely as in the growth of the principal crystal, the foot of the spiral wall was a favored point of attraction for foreign atoms. So no sooner was it born than the spiral was underlined with various deposits, and its visibility was noticeably increased by an unforeseen decoration.

Besides this the steps of the spirals could be, in relation to the crystal structures and certain of their anomalies, of the height of a multiple of the elementary cell.

The important fact, in any case, was the passage from the unobservable, that is, from the individual behavior of atoms among themselves, to the macroscopic level. If the theory of dislocations had been valid only for an ensemble of ten or so neighboring atoms, its aesthetic character would have been preserved, but its applications very limited. On the other hand, if its consequences were such as to be manifest on the macroscopic scale, in observable dimensions, it would be of interest in regard not only to matter but also to materials.

Soon, too, spirals appeared in the field of the electron microscope in highly varied examples of crystallization, either more complicated or more simple than those rising from the formation of beryl.

At the present time, eight years after the first observations sanctioned by theory, a special column has been opened in scientific abstracts to which examples of crystal growths by this process are consigned. However, it must be clearly noted that this is but one of the modes of the formation of solids and that, if, for example, one studies the solidification

of a metallic mass in fusion, other factors take precedence over the structural defect.

Another important observation to be made several years later was that one of the conditions for the observation of dislocations is that their density be relatively low. Thus, when in 1950-52 industry began to be interested in the single crystal (at any rate, in a very particular group of single crystals called "semiconductors"), the effort of geometric and chemical purification led to great progress concerning the observation of defects in arrangement.

Briefly it might be said that order and disorder are so intimately linked in matter that to varying degrees the pursuit of order, either in the framework of an intellectual aspiration for the generalization of the structural model or to fill a precise need such as that of the utilization of semiconducting properties, always causes a shock, or a knock, with a manifestation of disorder.

The utilization of the semiconductor is founded on a very particular distribution of electrons in materials of the same crystalline structure—the type of symmetry of the diamond. It involves, therefore, a question of properties—and of mathematical theories—more subtle than those concerned only with nuclei, the centers of gravity of their electronic environment. The result of the studies carried out by scientists of the Bell Telephone Company have led, thanks to the success of single crystals in which "harmful" impurities occur in the ratio of one atom in 10,000,000,000, to the application of mathematical physics to the technique of telecommunications. And this success won for those who effected it the Nobel Prize in physics for 1956, an unprecedented event which definitively removes the old frontiers, already very shaky, between pure and applied science.

From the point of view of our special interest, the single crystals of germanium—or of silicon—are of such a quality that these industrial materials are the matters most like the structural model. They still contain some dislocations, which may be uncovered by a chemical treatment of the surface and which are sufficiently widely spaced to appear under an optical microscope of rather low magnification.

Thus it was that in 1954 a stable arrangement of dislocations, forming a low-angle boundary between two regular fields without defects, actually appeared for the first time, while the schema of this boundary had been foreseen in 1939 by the Dutch physicist Burgers.

The year 1956 saw the most spectacular examples of proofs for the

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existence of dislocations. These proofs involved not only confirmation of their existence, including a distinction in certain crystals between the two types, edge and screw dislocations, but also of their movements. And the latter are produced exactly as shown by the soap-bubble model.

To grasp the movements of dislocations, it was necessary to make metal leaves so thin that, despite its weak penetrating power, the electron beam passes through them. Heidenreich had attempted this in America in 1948; Castaing succeeded in France in 1955, causing to appear on the screen segregated groups of atoms hardening aluminum in alloy with 4 per cent of copper (duralumin) by using ionic bombardment. In 1956 Bollmann, in Switzerland, pierced stainless steel, while, in Great Britain, Hirsch and his colleagues, using a German electronic microscope, succeeded in observing aluminum or stainless steel and, thanks to the inevitable heating of the sample, in stimulating the least stable arrangements of dislocations.

Once again the corresponding model, the one formed by the bubbles, was found by direct experiment to be valid, and once again nature not only answered in the affirmative but revealed even more than theory, once judged as too daring, had predicted.

The scientist is not seeking after triumphs. He gleans encouragement not only for himself but also for all those who, to varying degrees, as spectators, actors, or players of bit parts, participate in the same show. Even for those in the wings, a success on the stage is a powerful stimulant; a lighted projector—and to return to our first image—a pigeonhole which opens, a box which is properly furnished, is one more step toward new efforts which are well worth the trouble it takes to devote one's self to them.

So many problems still arise, both in the domain of matter and in the field of materials, that even the inspiring steps we have rapidly sketched make no complete picture—but they do fill a few pigeonholes.

It is sometimes amazing to be brought face to face with problems which seem simple to one who is completely ignorant of them; the lesson can be a very useful one of its kind. In 1951 its erudite founder, Professor Bearzi, showed me in the Etruscan Museum in Florence those astonishing gold granulations with which the Etruscans decorated their jewels. No one, he said, had achieved such a performance limited by the rudimentary means available to these strange peoples, so despised by the haughty Romans. And the question had long been under study; patents had even been issued for a glue which was supposed to assure the adhesion of these

microballs (they hardly exceed 0.1–0.2 mm. in diameter). But that procedure did not allow decoration of both sides of the plaque; it did not therefore duplicate that of the Etruscans, who had often produced double-faced jewels. Great experts studied the joinings of these granulations, some with a microscope, some with X-rays. Three years later, a Viennese artisan, moved by reproductions which he had seen of the granulations, tried to reproduce these objects which he had never handled. He did this in his room, with only the simplest of means at his disposal. And he made the joinings successfully with a natural solvent, showing that even in 1955 *Homo sapiens* could still lose the race and yield to *Homo faber*.

So there is still a place in our day for all artisans in the march of progress, from the most mathematical of physics to "do-it-yourself" soldering. But, whatever the manner of practicing the game, the rules must be applied, and the very import of the word "culture" is the making-known of these rules.

In a book in which his students hear the fine voice of their master, *De la méthode dans les sciences expérimentales*, the grand simplicity of a penetrating mind, Le Chatelier quotes Bacon: "In order to command nature, we must begin by obeying her laws." And as one sometimes hesitates between a small and a capital *t* when writing the word "truth" because even in physics there are small truths and large Truths, so there are also laws which are perhaps Laws.

Laboratory life is made up of many small facts: sums of positive results, compositions with negative results; and then one touches on something destined to grow—which may escape today only to reappear elsewhere tomorrow.

In ten years we have seen the spiral merging on beryl crystals, then on long-chained organic compounds, on gold spangles, on crystals of silicon carbide. And now, approaching matter no longer as an architect, but as an urbanist, crystallizing viruses like atoms, Wyckoff in the United States discovers organizations as regular as the models constructed for much less complex units. The electronic microscope shows many of these assemblages, with planes as perfect as rock cleavages. And yet at times, still somewhat in Limbo, a spiral appears to merge, seeming to animate living matter as it has awakened inert matter.

SOME ASPECTS OF AFRICAN
EVOLUTION IN THE
SOUTH SAHARA

African evolution in the south Sahara traces its origin to very ancient times; it began when the Negroes established friendly or hostile contact with representatives of the Mediterranean and then of the oriental civilizations. From the fifteenth century on, attempts at colonization or penetration helped to accelerate a movement that was to precipitate the two world wars. Thirty years ago, when the so-called colonial problem moved from the national to the international level, these conflicts and their consequences had already given rise overseas to imperious material needs demanding immediate satisfaction as well as to social and political aspirations calling for appropriate reforms. In half a century African evolution had reached the prerevolutionary stage.

The European occupation certainly resulted in an unquestionable improvement in the health and living conditions of backward communities; it abolished a barter economy and introduced the products of the abo-

Translated by Elaine P. Halperin.

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rigines to the world market. But, in addition to these positive gains, careful observers noted a formidable splitting-up of the family in black Africa, a breakdown of social structures, institutions, hierarchy, and morality, as well as the progressive disappearance of local beliefs.

UNESCO, alerted by the International Council of Philosophy and Humanistic Sciences, commissioned the International African Institute to study this complex problem of evolution. To begin with, the Institute was asked to initiate a twofold investigation: into beliefs and social values, on the one hand, and, on the other, into kinship, marriage, and current conditions of domestic life.¹

I. RELIGION AND SOCIAL VALUES

The theoretical and practical aim of this investigation required that those in charge should devote their first efforts to a statement on the varying ideas of Africans about the place they occupy in the world and their role in the community; to do this, observations of the beliefs and customs of the people had, above all, to be interpreted.

Long before Stace's stanzas, generally attributed to Lucretius' *De natura rerum*,

Primus in orbe deos fecit timor ardua coelo
Fulmina dum caderent . . . ,

men apparently feared the unleashed atmospheric forces. By studying them, they might discern an invisible, supernatural, governing world in the universe that influences and organizes a visible world through which it rewards or punishes the inhabitants. This belief gave rise to a distinction between the category of sacred, respected, forbidden things, with the accompanying religious or ritualistic obligations, on the one hand, and, on the other, the secular, ordinary things of daily life.

Until the end of the last century, religious science, which has inspired remarkable works, scarcely concerned itself with the beliefs of backward peoples; these remained almost unknown. One tended to associate them with the five main hypotheses that were entertained simultaneously and successively: first, Tyler's animism in his *Primitive Culture* (1871); then the theory of natural force and of a dynamism capable of being diverted or governed by magic; after that, in 1900, Marett's *Preanimistic Religion*. In

1. Daryll Forde, *African World-Studies in the Cosmological Ideas and Social Values of African People* (London: Oxford University Press, 1954); A. R. Radcliffe-Brown and Daryll Forde, *African Systems of Kinship and Marriage* (London: Oxford University Press, 1950); A. Phillips, *Survey of African Marriage and Family Life* (London: Oxford University Press, 1953).

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1910, W. Wundt, in his *Völkerpsychologie*, re-examined and modified prior conceptions about animism and magic. But, before then, around 1900, A. Lang introduced in *The Making of Religion* the notion of the Great God which, as early as 1906, R. P. W. Schmidt and the Vienna School were to support.

During the nineteenth century, except for rather rare instances, expositions of African beliefs were for the most part based upon observations which were frequently superficial or inexact. None of these explanations linked religious ideas and facts to the social structures and manifestations which, in all such investigations, generally shed light upon each other.

However, in 1864, in his preface to *La Cité antique*, Fustel de Coulanges stressed the necessity of contrasting these elements "in order to understand the inexplicable." But this wise precept was forgotten. The revival of ethnosociological studies in Europe and America at the beginning of the century should have served as a reminder at a time when on-the-spot investigations were inspired by new methods which enlarged their areas of operation.

In 1912 Durkheim contributed more than anyone else to a much needed revolution by publishing *Formes élémentaires de la vie religieuse: Système totémique en Australie*. He demonstrated that, in the mentality of backward peoples, the notions that dominate the flow of images spring from the very core of religion. Such are images of time, of space, of gender, of the power of causality, of personality; philosophers have used the term "categories" for these images, and they govern all logic. Going back in search of the religious origin of the categories, Durkheim emphasized that they possessed an abundance of social elements.

Nevertheless, research did not progress immediately in this discipline. As G. Dieterlen stresses in her very interesting *Essai sur la religion Bambara*, every religion possesses an exoteric element which scientific and methodical observation can uncover in all its detail. But it is far more difficult to extricate the doctrine, the fundamental principles of which are revealed only to the older men and to the superior initiates, who are usually reluctant to divulge its secret.

Distrust has decreased with time, so that fruitful, basic inquiries are possible, provided that qualified investigators, armed with patience and perseverance, can do their work on the spot. And, thanks to the efforts of such men, thoroughly oriented in the principles formulated by Fustel de Coulanges and Durkheim, progress in the study of African communities has made itself manifest. It is evident that not only have beliefs and branches of knowledge sprung up from the religious framework of com-

munities in Africa (as they have done elsewhere) but also, and above all, the rules of conduct which, taken as a whole, represent the ideal force from whose core springs the collective judgment of a society in regard to its spiritual values.

Shall we nonetheless admit the existence, among these peoples, of an "ethics" that stems entirely from supernatural inspiration and decrees what is proscribed or forbidden by the invisible powers? The etymology and the meaning of the terms *ēthos*, *ἦθος*, and *ἦθιχά*, *mos* and *moralis*, and *Sitte* and *Sittlichkeit* suggest that we should not overlook the notion of habit and custom in this connection.

In Africa, as elsewhere, experience proves that there is no universal or eternal morality but only norms of behavior that are variable in space and time. In every human group these norms decide, by means of local opinion, what is acceptable or reprehensible, in short, "what is done." Our Western notion of good and evil plays no part here.

The essays collected in this first series stress the diversity of religious conceptions and cults. On this continent, as in other lands, the diversity is due to the variegated nature of the milieu. The environment imposes itself everywhere, upon members of the community who owe their livelihood to it, upon different ways of living, of forming groups, of doing and thinking that are appropriate to the time and the circumstances.

A man attached to his land organizes his life and works according to his needs; these differ, depending upon whether he is a hunter, a woodsman feeding on tuberous roots, a farmer who cultivates cereals in the plains, a fisherman, or a cattle breeder. Each group develops and perfects its structure with the means at its disposal, making use of whatever possibilities are suitable. This is why we encounter in Africa societies that have a rudimentary organization and religion, others that have evolved further, and, finally, hierarchized communities like the Ashanti of Ghana, the Fon of Dahomey in the west, and the kingdom of Ruanda in the east, which have a state cult.

Methodical study of religious systems has shown that Africans have long outgrown the stage of "common fetichism" usually attributed to them. During these last years remarkable investigations have opened up new perspectives to research. Among others, we must cite Griaule's studies on the Dogon cattle farmers in western Sudan and those of R. P. Tempels on the peoples of the Belgian Congo.²

The inquiries pursued by Griaule and by those whom he has trained

2. M. Griaule, *Dieu d'eau* (Paris: Éditions du Chêne, 1948); R. P. Tempels, *La Philosophie bantoue* (Elisabethville, 1945).

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during the last twenty-five years enable us to discover a logically constructed cosmology in the vast region of western Sudan. This cosmology, springing from an original vibratory movement, exhibits the unity of the solar universe even unto the grain of *Digitaria exilis*. Complicated in its conceptions and its consequences, it actually culminates in a philosophy. It is symptomatic that Tempels' exposition bears the same title.

For a generation, research has collected numerous facts about the peoples of West Africa and the Bantus which seem to conceal, beneath an apparent diversity, an identical pattern. This is particularly true of the various offshoots of the powerful Mandé branch, which has almost three million dependents and whose metaphysics and religion, like the Bambara's, seem to embrace every social, technical, and economic activity. Thus, as Daryll Forde quite correctly remarks in the Preface to this volume, the power of binding cultural ties is visible below the superficial stream of daily life. As long as it persists, it will continue to guarantee the group's stability and flourishing continuity.

Unfortunately, on the social and moral level, this stability or equilibrium is more and more threatened by the construction placed upon it by Europeans, which has destroyed many useful values without offering any substitute. As a result, the Africans must find their way between the ancient beliefs and customs which they are abandoning, and the West with Christianity, or the East with Islam, which enjoys increasing favor in certain countries. Among the values whose progressive disappearance gives cause for alarm must be cited, first of all, family solidarity.

II. KINSHIP

The best comprehensive study that has appeared on this complex subject is that of Claude Levi-Strauss.³ Whoever examines family relationships among backward peoples must bear in mind the essential principle which he states: "Relationships of this kind can be defined in terms of both the individuals they involve and those they exclude." He adds: "While the absence of kinship determines a kind of 'neutral condition' in the conscience of so-called 'civilized' peoples, it is unknown in less developed communities where, within the group, the individual is necessarily either a real or fictitious relative or a stranger—in other words, an adversary or a virtual enemy."

3. *Les Structures Élémentaires de la Parenté* (Bibliothèque de Philosophie Contemporaine [Paris: Presses Universitaires, 1949]).

The importance of true kinship is so great in these circles that, when it does not exist, it is replaced by an artificial kinship. The best known of such relationships is the pact, or the fraternity of blood. To this can be added the corporative or work union and, finally, union by marriage, which will be discussed later.

In *African Systems of Kinship and Marriage* A. R. Radcliffe-Brown devotes an eighty-five-page introduction to fixing and assessing the problem of kinship in Africa. He presents numerous facts which emerge clearly, thanks to his ingenious analogies. We agree with the author that the family is always represented at the start by a necessary embryo, a biological nucleus, consisting of the mother and her children in a more or less close relationship with a genitor. But this elementary organization becomes more complex when the father controls many wives, for each wife, together with her children, forms a separate household.

In one form or another, the family embryo lives in the house and belongs to a stock which can be matrilinear, patrilinear, or bilateral and which, in turn, is integrated into the group of maternal or paternal relatives or into a mixed ensemble. The group is divided into generations and classes and, in addition, is subject to marriage regulations which at times are imposed by filiation.

Lineage, an essential element in the formation of groups, has as its original link the masculine or feminine ancestor that begot the succession of living descendants. If the agnatic ancestor has two sons, or if the maternal ancestor has two daughters, each of these children founds a new branch composed of the as yet-unborn masculine or feminine offspring. By virtue of this principle, the household thus augmented becomes an increasingly numerous and extensive family that develops into a clan.

It is regrettable that this interesting study makes no mention of a particular type of widespread family organization that was common in western Africa and elsewhere fifty years ago and that can still be found here and there. This group consists of from fifty to a hundred and twenty-five relatives, allies, slaves, or dependents of both sexes, cultivating common undivided lands, and all of them producing and consuming jointly under the authority of a chief, guardian of public worship, and administrator of property. During the past half-century this type of association gradually broke up under the influence of economic changes, and for the same reasons which precipitated the dismemberment of analogous European organisms like the *Geschlechthäuser* in Germany during the Middle Ages,

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the *communautés taises* in France, and, more recently, the *Zadruga* of old Serbia.⁴ Twenty-five years ago René Maunier noticed among the Kabyles of Djurdjura similar characteristics in a group which, according to him, is located there: an economic communality of ownership, production, and consumption and, at the same time, a "mystical and liturgical association for worship and religious observance."⁵ The effect which the disappearance of this kind of association had on the deterioration of the bonds of kinship and of domestic life will be discussed later.

The progressive complexity of African kinship prevents authors from compiling at this time a complete and synthesized record of it. This explains why Radcliffe-Brown's book, although based on a very valuable outline, is confined to providing characteristic examples of structures drawn from the field by specialized investigators. One encounters in it, among other things, the example of the Ashanti of Ghana, who are of matrilinear descent and among whom religion and property are transmitted by the mother. The same custom with similar effects exists in eastern and southern Africa, among the Swazi, Zulu, Nyakusa, and Tswana, while double filiation with its consequences is to be found in the west among the Yaka of Nigeria and in the east among the Nuer of the Nuba country.

The normal evolution of customs, under the triple influence of colonization, the West, and Islam, has disturbed ancient structures everywhere and brought about adjustments. Thus, among the Bantu peoples of eastern and central Africa, an increase in paternal authority at the expense of that of the mother has been observed. The same is true of the sedentary Peul shepherds of western and central Africa, who have become more and more Islamized ever since the fifteenth century. An analogous evolution has been noted among the matriarchal Rhodesian and Nyassan tribes which today readily acknowledge the husband's authority over his wife and children, although in the last analysis the emancipated sons are intrusted to their maternal uncle, who educates them. As early as 1920 E. W. Smith and M. Dale, in their fine monograph on the Ila,⁶ underscored a similar mixing of the two customs.

Despite the extent of the possible variations in kinship and the diversity of combinations which they comprise, one can say that they embrace

4. H. Labouret, *Les Manding et leur langue* (Paris, 1934) and *Paysans d'Afrique occidentale* (Paris, 1941).

5. *Mélanges de sociologie nord-africaine* (Paris: Alcan, 1930), p. 83.

6. *The Ila Speaking Peoples* (London, 1920).

several general principles which characterize the system as a whole. Everywhere is observable a distribution of individuals according to generations, the latter being fixed by age. The members of the older generation assume the functions of authority and responsibility, while the young are expected to maintain toward their elders attitudes of respect and dependence in all relationships.

Individual conduct and a study of personal names reveal, moreover, that in each generation dependents of both sexes develop a reciprocal relationship in which some play the part of elders, teachers, and supporters and others that of protected younger children. Thus the first category has rights and duties toward the second that are included within the framework of the mutual obligations of the kinship system, which operates in regard to marriage.

III. MARRIAGE

It is hardly necessary to emphasize the importance of this major problem, which has been studied in a special volume entitled *Survey of African Marriage and Family Life*.⁷ This work and the various expositions it comprises are remarkable for their painstaking thoroughness and their praiseworthy effort to present clearly most of the aspects of a thorny problem. Given the magnitude of the subject, we must pay homage to Dr. L. P. Mair, who attempted the thankless task of collecting systematic information about all of Africa south of the Sahara. His data would be more complete if the French possessions had been included.⁸

Until recently, marriage possessed in the eyes of the Africans (a) a political aspect, its purpose being to cement an alliance between two groups; (b) a religious significance, by introducing the wife into the husband's cult; (c) a social quality, by integrating the household into the family, the basic unit of a collectivity; and (d) a self-evident economic role.

It was also an agreement with juridical consequences, since it conferred legitimacy and therefore the right of inheritance upon the children, within the kinship of a community. Finally, it sharply distinguished the occa-

7. It is divided into three parts, and there is a long introduction by A. Phillips: (I) "African Marriage and Social Change," L. P. Mair, professorial lecturer at the University of London; (II) "Lois concernant le mariage en Afrique," A. Phillips, professorial lecturer at the University of London; and (III) "Le Mariage chrétien dans les sociétés africaines," Rev. Lyndon Harries, missionary, professorial lecturer at the School for Oriental Languages of London.

8. The author would have found useful documentation in the publications of the Institut Français at Dakar (*Bulletin and Mémoires*); in the *Bulletins des Territoires de l'Afrique occidentale*, in those of *Études sénégalaises, éburnéennes, dahoméennes, camerounaises*, etc.; in *Cahiers internationaux de sociologie*; *Études*; *Le Monde non-chrétien*; etc.

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sional genitor from the "social father," since the function of the latter could and still can be discharged, for example, by a childless, rich woman who regularly marries another woman and pays the matrimonial tariff. The children of the latter and her lovers are considered to be the legitimate progeny of the former.

In marriage a pact between two groups, the choice of future partners, and their consent have been required only recently. A marriage that may be described as classical comprises two essential ceremonies upon which are grafted some secondary activities. The first is the agreement between the two parties, preceded by indirect, then direct, conversations which may begin even before the birth of the fiancée and often before she reaches puberty. The ceremony of "betrothal" signalizes the consent of the two groups by the presentation and acceptance of symbolical objects reserved for this purpose and possessing a distinctive meaning. These, for the most part, are tools and domestic utensils, and sometimes coins or animals given to the head of the fiancée's family. All of these, Leenhardt writes, are symbols of female life, to be exchanged for women who themselves are sources of life. The object is the sign, the attestation, the proof of the execution of the agreement. Among shepherds, the steer that figures in such ceremonies is, in the eyes of the interested parties, part and parcel of the life of the giving group; it is presented as a recompense for the girl who is to be received in the future. Thus this transfer is an exchange of life for life.

In this ancient procedure, which even today has not been completely abandoned, objects or animals represent affective values, difficult to tax; consequently, it is doubtless improper to consider them as money. But, later, when they lost their juridical character of proof and when the symbol they represented had been forgotten, other means were substituted for what they had signified: prestation, or money. The term "payment" could then be properly applied.⁹

In many African communities a marriage is considered to have taken place, even if it has not been consummated, as soon as the symbol has been delivered or a partial payment of the total sum agreed upon has been paid. And, indeed, it sometimes happens that debtors fail to pay what they owe. This calls for legal suits in order to arbitrate differences among the living as well as the dead who failed to keep their promises to pay the matrimonial compensation, which was subsequently being claimed from their heirs.

After what can truly be termed the "betrothal," a more or less lengthy

9. M. Leenhardt, "Cérémonie et sceau du mariage," *Le Monde chrétien*, XV, 321 ff.

period ensues during which the two parties exchange prestations, gifts and counter-gifts. In societies based on paternal authority and patrilocal marriage this interlude culminates in various ceremonies consisting of diverse rites. At times the bride is welcomed with great pomp and solemn reception; at others, on the contrary, there is a sham abduction to which the girl's relatives respond with gestures of protection and obstruction. It is obvious that in the case of a matrilocal marriage these customs are not observed, since the husband goes to the home of his parents-in-law, whom he serves with respect and humility in order to win their favor.

We must say a final word about the marriage ceremony, alluding to its last phase—a religious one. This consists in offering on the family altar sacrificial victims to the supernatural and ancestral powers and in presenting the young bride on this occasion, with entreaties that they should protect her. Frequently in such occurrences the young married couple partakes of a meal which some have interpreted as a kind of communion.

The exchange which we have described in general terms is often impractical or deemed inopportune, and so a more convenient procedure that derives from it is often substituted. In French this is called *mariage par achat*, a term that has its equivalent in German, *Kaufehe*, *Brautpreis*, and in English, "purchase money," "bride price," "bride wealth." People who employ these expressions admit that they are inexact, since the property they designate cannot really serve as a payment, because the wife to whom this refers cannot be the object of an appropriation or a sale, nor can she be put to death. In Belgian and French studies the word *dot* is also used, which is no more satisfactory. Actually, the property in question does not accompany the bride but remains in her own family. Relying upon a definition in classical English, Radcliffe-Brown at times used the word "prestations" to denote the payments in money and in services required by custom which made a marriage valid. The expression "matrimonial compensation," which has also been suggested, is perhaps more suitable for this purpose.

Quite apart from whatever term one might use to denote such a transfer of property, A. W. Hoernlé has stressed the special intermediary role that cattle have played among shepherds in this connection. "It makes its appearance in all relationships between human groups, first among the living in the form of compensation and expiation for homicide, then between groups of living persons and dead in the form of a sacrificial offering; finally among groups that intervene in marriage."¹⁰

10. "The Importance of Sib in the Marriage Ceremonies of the Southeastern Bantu," *Association for the Advancement of Science*, XXII (1925), 481.

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Shepherds who engage in this practice of exchange integrate the cattle into a kind of common flock, not to be sold or exchanged but eligible to serve a sacrificial purpose. In actuality, they usually become the object of a reinvestment. With these animals, delivered as matrimonial compensation for the girls of a group, the eldest of the family will procure wives for the brothers or cousins of the brides. In this way the special reserve of cattle varies and is constantly renewed. Levi-Strauss says apropos of this: "During the course of the marriage ceremony, prestations and counter-prestations, gifts and counter-gifts are exchanged back and forth between the interested parties and according to an alternating rhythm; the double circulation of wives and cattle insures, throughout the ages, the union of groups and of generations."¹¹

Arrangements varied among the farmers of western and central Sudan and among other peoples who either had very few cattle or none at all but who were organized in extensive families of the "clannish" type. Usually each family cultivated one particular field two days a week, the rest of the time being taken up by work in common. Each member of a communal group had some money or goods of his own which he could dispose of. The eldest of the group, the administrator of the common property, collected all ordinary and extraordinary revenues; included in these were the matrimonial compensations paid for girls given in marriage. He also paid all general expenses, especially those incurred in marrying off the young men of the family. In the recent past the eldest, as property manager and arranger of profitable marriages, was also, therefore, the donor of women. His prestige and his influence over his unified and close-knit group were considerable. The economic and political changes that occurred in the last fifty years were to modify the early stability. This becomes apparent when we examine actual family life.

We should mention, in this rapid exposition, that both Mair and Radcliffe-Brown referred briefly to the existence of marriage without compensation. The customs of the *pog-siuré* and the *zan-poko* among the Voltaiques and of the *nkap* among the Bamiléké of the Cameroons¹² merit a more complete examination than the outline I have given. A study of these special phenomena will shed light on the conception of marriage without compensation, on the eventual redemption that is liable to occur,

11. *Op. cit.*, p. 579.

12. H. Labouret, "Situation matérielle, morale, coutumière de la femme dans l'Ouest-africain," *Africa*, XIII, No. 2, 97 ff.

and, in such a case, on the value of this compensation and its relationship to the number of children born, to be born, or to be recovered.

IV. FAMILY LIFE

The extensive family corresponded to a situation arising from insecurity. Relatives, strongly united in a walled-in economy, represented a responsible association for protection against any hostile attacks. But these ancient family groups ceased to be indispensable when the colonial order was imposed and a new economy established. In these countries open to traffic and movement, the old community broke up, liberating the composite households, and what remained of them led, from then on, an independent existence. The consequence of the disappearance of the ancient extensive family was the weakening of domestic, village, and even regional cults. At the same time the regulations for local morals were no longer observed, since the sanctions that the elders, the domestic and village councils, had ordained in earlier days were abandoned. These were unsatisfactorily replaced by less immediate, and at times arbitrary, penalties inflicted by the chieftains, the tribunals, or the administration.

Nevertheless, the households, liberated from the extensive family, remained intact. They formed an apparently firm group made up of the father, the mother, and children of the same flesh and blood, who felt affection for each other and thus strengthened understanding and co-operation. It is true, of course, that polygenetic households, in which children of different mothers lived, were less united. Those who had the same mother and father were antagonistic toward their step-brothers and step-sisters, a situation made manifest in all tongues, in numerous proverbs, and in suggestive phrases. Step-brothers readily left their native home, while siblings usually remained until the father's death. Then they established their own households, sometimes with others, sometimes independently.

After this new scission, bonds of kinship either continued or weakened or even ended up by being broken, according to whether the new establishments were more or less distant from the old ones and whether or not they were surrounded by strangers. On the whole, the sense of co-operation and reciprocal obligation became blunted under the combined influence of colonization and economic evolution, and a sterile individualism took its place.

In the new atmosphere the woman acquired a more pronounced personality; she was rarely beaten or mistreated. Under the new economy

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she also acquired the right to possess and dispose of property. Some women owned plantations; others went into business and earned substantial profits. Sometimes women united to form corporations, and they learned over a long period to protect their highly won privileges by strikes, if necessary. As early as 1352 the Arabian traveler, Ibn Batouta, described a women's revolt in the Sudan. This sort of thing has not disappeared, as attested by the feminist movement of 1929 in the Nigerian provinces of Owerri and Calabar, whose purpose was to protest certain taxes that affected women in business; by the far more recent movement of the female Bamiléké farmers against concessionaries in the French Mandate of the Cameroons; and, finally, by the mass of female petitions addressed to the Trusteeship Council of the United Nations.

Freedom of choice in marriage, reluctantly granted in earlier times to women or to widows who wanted to remarry, is now officially accepted by custom and even recognized legally in certain parts of the country. However, in many places the young girl remains submissive to parental wishes in such matters, although she can escape by running away or by being abducted by the man of her choice. Otherwise she submits to marriage in the traditional fashion.

Actually, many heads of households still consider "the girl as family property in no way different from their house or plantation." The best possible deal for her must be negotiated. For the last forty years matrimonial compensations have been outrageously exploited. Before 1914, in certain parts of the country, these compensations did not amount to more than a thousand francs. Today they have reached several hundred thousand francs; in addition, the suitor is expected to pay other related expenses and to give sumptuous gifts—all of which often amounts to twice as much as the initial sum.

The young men suffer from this situation. Freed from family fetters, most of them are salaried employees who no longer contribute all their earnings to the head of the household. Consequently, they cannot ask him or other relatives to give them money for the marriage compensation. They are rightly indignant when they see the father of a marriageable daughter encouraging several suitors to compete in order to raise the marriage fee, accepting gifts from all of them, and then, when the marriage has taken place, encouraging the daughter to obtain a divorce so that she might be put on the market again. Hence the statistics show a regrettable increase in the number of bachelors, a parallel lowering of the age level of married men, more prostitution and adultery, and, generally speaking,

a grave deterioration in moral standards as well as growing instability in marriages. These disturbing facts are due not uniquely to the shortcomings of outmoded customs but also to the results of economic development. Still another factor is the absence from home of urban and rural wage-earners, leaving their wives and children without supervision or direction.

Governments and missions are attempting to remedy this situation, but, in envisaging appropriate reforms, both are limited by prior commitments on the part of the protective powers. The latter have pledged themselves to respect the rights and customs of subject peoples if these are not contrary to public order or to the principles of Western civilization, as slavery and cannibalism, for instance, would be.

The missions whose principles are clearest have adopted three directives: (a) to preserve and encourage customs that are not contrary to religious or natural law; (b) to assign to the missionaries the right to combat anything that is opposed to Christian ethics; and (c) to proscribe all customs that are contrary to natural law.

The colonial powers, after a good deal of experience, were finally obliged to choose a policy. Should they abolish local customs or preserve them temporarily? Should they further their development by slowing or accelerating their rhythm? In the latter case one ran the risk of precipitating crises of adaptation disastrous from a material as well as a moral point of view. Having weighed all the elements of the problem, the governments concerned thought it preferable for the time being to preserve the local customs. Further, they all agreed that it was not their role to act as civilizing agents in the area of private relationships or even in the public domain. Consequently, the thing to do was to safeguard local customs, supervising and, wherever possible, fostering their evolution.

The French government noted that in almost all of Africa south of the Sahara marriage had become virtually everywhere an individual contract. And so, on June 15, 1939, it sanctioned this by decree, fixed the marriage age for couples, and required the consent of both parties and, in the case of levirate, the consent of the girl. To remedy certain lacunae in this regulation, a second decree of September 14, 1951, granted Africans of both sexes liberties identical with those enjoyed by the French. In addition, it authorized entry in the state's registers of the husband's promise not to take another wife until his recorded marriage had been dissolved.¹³

13. J. Binet, French Overseas Administrator, "Aspects actuels du mariage dans le Sud-Cameroun," *Bibliothèque penant* (Paris), No. III (1952); Sister Marie-André of the Sacred Heart, *La Condition humaine en Afrique noire* (Paris, 1952).

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The missions generally believed that it was impossible to reconcile Christian principles with local tradition, and therefore refrained from adopting the common regulations in regard to African marriages. They did insist upon disseminating a Christian form of the sacrament, even though, here and there, they had to make certain compromises because of local tradition. But they were uncompromising on the subject of polygenetics. In 1948 Portugal imitated them, and in 1950 Belgium did likewise. France refused to follow suit in order to avoid conflicts with the law of the Koran, which many dependent Moslems obeyed. Moreover, African public opinion continues to value polygamy and would like to reserve the right to practice it.

V. PEACE, IMPROVEMENT OF HEALTH, EDUCATION

The changes which occurred in the domain of beliefs, kinship, and marriage envisaged by UNESCO's investigations are not the only ones that Africa in transition presents. History reminds us that Europeans, as soon as they arrived in the tropics, were confronted with a human problem that was extremely complex, the data of which can be summarized in three categorical imperatives: (1) to insure security, quiet, and order in regions where lawlessness and anarchical confusion reigned; (2) to conquer illness, endemic diseases, and tropical epidemics—the begettors of a terrible mortality rate, in some instances killing six out of every ten persons (those who escaped such dangers were not able to avoid a poor state of health that drained their strength, prevented them from working and eventually from eating, and forced them to vegetate hopelessly in the kind of poverty that decimated the race); and (3) to educate these backward peoples while respecting local customs, yet modifying them wherever such action would bring a better standard of living, and to transform barbaric illiterates into conscientious and effective workers in a democratic and peaceful society, in accordance with the terms of the United Nations Charter.

VI. ALIMENTATION—NUTRITION

These three objectives were realized without major difficulties. But, in implementing this program, the problem of human nutrition proved of capital importance in the twin sectors of economic production and management. Local authorities, it is true, have currently been successful in handling fortuitous and periodic famines, but they have not yet been able to abolish seasonal scarcity everywhere.

The world was informed of these problems in 1909 by Professor de Wildeman, who showed, with supporting evidence, that the natives of the Belgian Congo were undernourished. Thus alerted, the colonial powers made a genuine attempt to practice a policy aimed at improving the quantity and quality of nutrition in their overseas territories. The responsible administrators received instructions to remedy these insufficiencies, but the results achieved were negligible.

In 1931 the League of Nations became interested in the problem. Its Committee on Hygiene had just launched an elaborate investigation into the problem of nutrition and hygiene in Europe and soon extended its activities to the south Sahara and to certain regions of India. This inquiry attracted the attention of Sir J. H. Thomas, the British Colonial Secretary. Immediately, he got out a dispatch entitled "Nutrition in the Colonial Empire," which defined the framework within which studies were to be made and the program required to remedy an apparently disquieting situation. Thereupon action was taken. The governments concerned—France, the United Kingdom, Belgium, the Netherlands, Italy—set up committees and called congresses to study the problem of nutrition. The Institute of International Affairs focused on the question in a book which it had just published, *The Colonial Problem*. But the outbreak of war interrupted all this research.

It was resumed by the United Nations under the auspices of the Committee for Alimentation and Agriculture. The number of missions increased, and they met periodically to compare and discuss the results of their work. The most important mission set up in France was directed by Professor L. Pales. Aided by physicians and specialists, he spent the better part of two years in all the territories of French Overseas Africa. The program of this "Anthropological Mission (Alimentation and Nutrition)" comprised six parts: (I) Anthropology; (II) Physiology and Basic Metabolism; (III) Biological Chemistry, Blood Constituents, Vitamins; (IV) Alimentation, Daily Rations, Nutritional Analyses, Nutritious Diets; (V) Psychology; and (VI) Pathology.

The head of the mission insisted upon a thorough investigation into the mentality of the native peoples, believing this to be closely linked with the problem of the oxidization of food in the human body. This comprehensive inquiry has compiled records of thousands of precise studies. As for the principles of human nutrition, the mission carefully verified the main needs of the economy: caloric heat, nitrogen, preventives. The latter included vitamins, calcium, sodium, iron, etc. Attention was also directed

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to a special nutritional group in French Overseas Africa consisting of both vegetable and animal elements. The former are abundant but poorly selected and carelessly prepared; the latter are rare (milk, meat, fish). Information provided by interested services aided the cultivation of cereals, vegetables, and fruits as well as the organization and development of such industries as those concerned with the preparation of fresh and dried fish. Finally, the mission circulated balanced diets based upon the products of the country and also provided a list of items divided into protides, lipids, glucides, minerals, and 100-gram vitamins.

VII. STANDARDS OF LIVING

Vigorous action in solving the nutritional problem was coupled with a definite effort to survey standards of living and economic life overseas. But in the beginning very little attention was given to these problems except for a few review articles and M. Perham's book, *The Native Economics of Nigeria* (1945), which she wrote in collaboration with Daryll Forde and R. Scott. In France, too, an interesting study was prepared by R. Hoffherr and R. Morris.¹⁴

In 1936 the French colonial office decided to launch an analogous investigation in tropical Africa and in Madagascar; detailed questionnaires were sent out to guide the researchers. The inquiry, which elicited few helpful replies, was interrupted by the war in 1939. It was resumed in 1953 by the executive committee of the Fund for Economic and Social Development. This committee intrusted to the Ministry of Overseas France the responsibility of getting its High Council for Sociological Research to list and study family budgets in the cocoa area of the French Cameroons. The task was assigned to the head administrator, J. Binet,¹⁵ who devoted two years in the field to it. This initial investigation in the French mandate was duplicated on the Ivory Coast in the woodland cocoa, coffee, and banana zone by an analogous and parallel mission, the results of which are not as yet known.

Binet and his collaborators explored the Cameroons in the sector assigned to them, which contained an ethnically and linguistically homogeneous Boulou and Ewondo population that inhabited the regions of Nyong and Sanaga, of Dja, Lobo, and Ntem. In principle the object of

14. *Revenus et niveaux de vie des indigènes au Maroc: Études économiques et statistiques au Maroc* (Paris: Librairie Sirey, 1934).

15. J. Binet, "Budgets familiaux des planteurs de Cacao au Cameroun," *L'Homme d'Outre-Mer* ("Office de la Recherche Scientifique O.-M., Section des Sciences Humaines," No. 3 [Paris, 1956]).

their research was to determine and contrast family budgets and standards of living, which naturally involved looking into the circulation of money and goods. They also had instructions to examine savings, "these economic data being fixed within the human context whose structures and conduct the investigators were trying to understand." Actually, the study bore mainly upon monetary income in a rural economy of subsistence where food and lodging are almost entirely assured by local, non-taxable resources.

However, the division of labor according to sex reveals the principal source of income. The women work solely at the cultivation of produce which nourishes them, while the men derive 70 per cent of their revenue from cocoa. Ten per cent of the men do not own plantations and therefore are wage-earners, artisans, or functionaries. Annual monetary income, with the figures given in French African francs (official rate about 210 to the dollar), runs as follows: 45 per cent, 15,000-50,000 francs; 17 per cent, 50,000-100,000 francs. This income provides the funds for taxes, prestations, and various items purchased in the shops, always leaving an appreciable margin for savings, which amount to about 10 per cent in all budgets. Such savings reflect a profound change in the attitudes of the native peoples, who once were victimized by inordinate waste. The existence of these savings is a matter of concern to the tutelary powers, who are anxious to see such reserves used to make the new economy more productive.

The conclusions stated in this important report are favorable. Yet it is evident that changes in agriculture result, here as elsewhere, in the dissolution of the extensive family and in individualization of lands, home, and customs. Nevertheless, in this mixed economy, devoid of ancient structures and hierarchies, there is steady, undisturbed progress.

The outline attempted here ends upon a note of optimism, overlooking as it does the tragic consequences of the clash of cultures for which colonialism is held responsible. The example of the Cameroons is certainly not an isolated one. It proves that stability is possible in Africa. However, to build this stability upon solid foundations demands the interest, wisdom, and help of the sociologist, the educator, and the missionary rather than that of the all too frequently poorly informed legislator.

BOOK REVIEWS

Louis Renou

The Cultural Heritage of India, Vol. IV: The Religions
(Calcutta: Ramakrishna Mission Institute of Culture, 1956.) Pp. 775.

Early Indian Religious Thought

By P. D. MEHTA
(London: Luzac, 1956.) Pp. 532.

Aspects of Early Visnuism

By J. GONDA
(Utrecht: Oosthoek, 1954.) Pp. 270.

The Wonder That Was India

By A. L. BASHAM
(London: Sidgwick & Jackson, 1954.) Pp. 568.

Beginn der Philosophie in Indien

By W. RUBEN
(Berlin: Akademie-Verlag, 1955.) Pp. 338.

During recent years the religions of India, an inexhaustible topic, have been the subject of many important works, monographs as well as comprehensive studies. The above is a short selection.

First, the fourth volume of *The Cultural Heritage of India* (actually the second to appear), is one of those ambitious undertakings in which Indian historians have delighted since the libera-

tion of their country. Volume III, published in 1953, deals with philosophies, or with what amounts to religious speculation at its highest level. Volumes I and II are concerned with religions from a more literary point of view; only the fifth and last volume includes the secular disciplines. We have here a sign of the primacy of religious problems in Indian studies as well as an indication of the support which the Cultural Institute, sprung from the very midst of the Ramakrishna Mission, gives to enterprises of this kind. This is, of course, a collective work, made up of juxtaposed, brief chapters written by eminent specialists on Indian antiquity whose main concern is not the history of religious phenomena. Names, even more than competence, were obviously important.

The plan is very clear. The principal sects are reviewed first of all, those that can be grouped into the category of Sivaism, then those that stem from Vishnuism. Tantric movements as well as minor formations follow. The second section serves as a kind of complement to the first: saints are dealt with here; that is to say, persons or groups (regardless of whether they are connected with some manifestation of the sect) that have inscribed privileged moments of mystical resurrection on India's past. The part that follows is perhaps more original in its conception, because it is concerned with details of religious practice, about which we are generally insufficiently informed: ritual, prayer, festivals, pilgrimages. Here we readily perceive that Indian unity which might seem nonexistent in the preceding section on the multiplicity of religious groups and sec-

tarian fragmentation. But the main part of the work goes no further. The rest is marginal: non-Hindu religious movements—Zoroastrian, Christian, Moslem, Sufi—modern movements, contaminated by Western influences; the various *Samajs*; the theosophists; and, finally, Ramakrishna. Thus the approach of the book is even broad enough to embrace theosophy, which, however, attempted to integrate Indian values only in order to alter them immediately. On the other hand, the religion of the "primitives" is mentioned solely in regard to one precise point, although this important phenomenon has been studied recently from a fresh viewpoint. Buddhism is not treated in this exposé, nor is it dealt with in the "philosophical" volume: only the Buddhist aspect of tantrism is mentioned; its omission would have affected the unity of the facts.

It is easy to see that these forty-six chapters, each of which is devoted to an ensemble of more or less autonomous religious facts, do not come to grips with the totality of the problems. The reader is called upon to resituate the information within its historical perspective, to place each manifestation that is presented to him in the mythological, ritualistic, and speculative framework of the *Veda*. Actually, all these minor churches and denominations have borrowed from the Vedic source as from a vast reservoir of ideas and images. The plan of the book, its pedagogical divisions, scarcely help one to remember this. But, to a certain extent, this drawback is compensated for by the two preliminary exposés. The first, written by Bhagavan Das, stresses the permanence

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of India's moral values. The intermingling of the masses through festivals and pilgrimages which have beaten a path throughout the country from the north to the south, the universalization of the caste system, the adoption of a common ideology such as *bhakti*, or devout love, *karman*, or varying retribution for acts, and, finally, the diffusion of literary languages, particularly Sanskrit—all these have brought about, if not a leveling of the sects, at least parallelisms and convergences. One could say that in India an almost mandatory blueprint presided at times over the birth, the development, and the decline of the sects.

On the other hand, the second account, the work of the well-known historian, R. Ch. Majundar, separates the mass of facts into six historical periods. After the pre-Aryan epoch, which the archeological findings at Harappa and Mohenjo-Daro revealed (and which we now know embrace an immense span of territory and of time, up to the very beginning of historical times), comes the so-called Vedic period. The latter must have extended from 1500 or even 2000 (therefore coexisting with but unaware of the civilization of the Indus) right up to 600 B.C. It ends in a kind of decantation of the old sacrificial polytheism which constituted the dominant theme of ancient Vedism. Then comes what Majundar calls the period of revolt—the forerunner of which can be detected in the *Upanishads*—a period marked by the almost simultaneous apparition of Jainism, Buddhism, and Bhagavatism. Less familiar, less plainly identifiable, than the two preceding movements, the latter stems from the chief of the Krishna clan, one of the

lateral epic heroes whom Majundar, perhaps correctly, considers an authentic personality of the same order as Jina or Buddha. Actually, the element of "revolt" is quite attenuated in this Bhagavatism; the latter limits itself to substituting the image of a unique god of perceptible form for the universal soul of the *Upanishads*: a return to *Veda* quite as much as an innovation. Such is the pendulum that marks all Indian evolution in the speculative domain. The fourth period is the puranic age which purports to bring us from A.D. 300 to 1200. Behind the purely literary designation lie important phenomena whose point of departure still remains enveloped in fog: the decline of universalist beliefs and especially Buddhism and the appearance of the first Hindu sects. From 1200 on Islam was gradually to modify the Hindu substratum—an important fact, yet less so than the massive contribution of modern ideas that began in the eighteenth century, a contribution whose consequences are difficult as yet to predict and one which marks a sixth period, a kind of *kalīyuga* in the process of evolution. This hierarchy of facts reposes upon a solid foundation, but it has one drawback: it does not enable one sufficiently to appreciate that innovations in India generally have deeper roots than the men or the texts that reveal them to us and that ancient ways persist long after the verdict of history pronounced their demise.

We will not dwell extensively on P. D. Mehta's work, which is of more limited scope, although neither mediocre nor arbitrary. But it contributes little that is new to those who know India. The subject seems to be some-

what diluted by an exposition of theological trends, an impression one has of so many contemporary Indian works. This is mainly true of the second part, which, on the basis of Indian ideals—*maya*, reason, concept of the divine, *karman*, sin—retraces the characteristics of a kind of universal religion: a large undertaking which has been attempted more than once and which diminishes the element of Indian specificity. The first part of the book is more useful. In it one finds precisely the kind of background that is somewhat lacking in the preceding work: a description of Vedic beliefs, of primitive Buddhism, of undifferentiated Hinduisim seen through the *Bhagavad-Gita*. These are, of course, elementary observations, but they are always valid; good translations of Sanskrit or original Pali texts help us to fix ideologies within their literary context. Like so many Indian authors, Mehta represents idealist trends; whether he is concerned with the *Veda*, the *Gita*, or Buddhist sermons, everywhere he finds instruction about the scant reality of the world, about the intense reality of projections of thought and the steps that lead to absolute values.

The work of J. Gonda, the well-known Dutch Indianist, is altogether different. It deals with the most ancient aspect of Vishnuism. We are familiar with the way in which the image of the god Vishnu, that grew to tremendous proportions in classical India, started with light strokes, broken lines. When these rough drafts were put together, they already represented, in miniature, the fundamental mythical data: the "diffusion" of the god throughout space (which, in its way, the myth of

the Three Cosmic Steps takes into account), the adoption of animalian or heroic cycles which were to become the *avatars* of the deity, once it had come of age. These rather humble beginnings are not exceptional in India, where Siva, too, started as a reflection of the Vedic god Roudra, who was also a secondary figure; and Krishna was a rather obscure local chief, merely a master who was mentioned from time to time in the *Upanishad*. Gonda's book omits practically nothing in the ancient documents that has to do with Vishnu or pre-Vishnuism. The author examines epithets that conceal some part of the god, tales in which he is present or involved. At times Gonda goes beyond the Vedic epoch in order to give the reader a glimpse of the new ritual that has replaced the ancient, complex liturgies. This last part of the book is the newest, but the work as a whole contributes precise information in all domains and is enriched by an abundance of citations and references. We are familiar with Gonda's approach to religious semantics. He suggests a kind of primitivism based upon magical "power," an evolved primitivism, if we may call it that, which is in no sense final but rather prepares us for a richer, more substantial spiritual vision than that which is served up under that heading within the framework of Indian religions. Let us see for ourselves by looking at the Epilogue (p. 174), where Gonda summarizes his views on what might be called the transition from Vishnu to Vishnuism: "Although Vishnu became the Supreme Being only after a long process of amalgamation the details of which, unfortunately,

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have been lost forever, the omnipresence of Vishnu, his activities as chief, protector, support, the interest he has in human well-being, his accession to the state of Savior—all this is not due merely to the simple fact that little by little he incarnated the *Brahman*; nor is it due to the composite character of the great god that borrowed some functions from Vedic divinities and introduced central figures into popular, pre-existing cults. Rather it is the process of amalgamation which helped to deepen the role of the god so that now we can understand why Vishnu rose so high among the gods of the archaic period. We see how his principal *avatars* recall ancient characteristics appropriate to his conduct: the aptitude for helping, for saving, for coming down to earth, and even for entering and supporting the earth, for resisting evil forces of diverse origins. It is not impossible to understand how the notion of *avatar*, as well as the cult of the *bhakti*, developed within the circle of Vishnu worshipers. On the one hand, early Indian thought sought an ultimate principle that might seem 'multiple,' an omnipresent and universal power upon which all of existence would depend and which would be the very basis of the universe, an all-seeing Divine Spirit in whom all spiritual beings would participate; on the other hand, it felt the need for a personal god who would prove to be a friend, a faithful companion, an untiring aid, a reliable refuge. Therefore, in diverse circles, among men of varying culture and education, Vishnu might very well come to be thought of as God himself, whose attributes, although transcending human intelligence, have been de-

scribed with fervor and imagination by poets and writers of sacred literature, with subtlety and acuity by philosophers and theologians, each stressing the aspects in which he himself, his readers or adherents were particularly interested."

Religion is given relatively limited space in a fine book by the English Indianist, A. L. Basham. Those who seek in manageable and convenient form a rather precise account of the entire traditional past of India, from its pre-Aryan origins up to the Moslem invasions, will find it in *The Wonder That Was India*. This work, which is moderately didactic, will help students in their initial investigations, just as Barnett's *Antiquities of India* aided preceding generations. A good bibliography, citations from texts that are well chosen and well translated, numerous reproductions of works of art—all these lend their own stamp to the book, whose content can hardly be summarized because it deals with all the forms marked by the Indian genius, with all the stages of its long history. The chapter on daily life in classical India will be particularly appreciated because we are far from possessing the precise data on the familiar *realia* in India which other ancient civilizations, literally less rich, have transmitted to us.

W. Ruben's book is one of a long series of works which place increasing emphasis on a point of view that, at first, was stated with some reserve; to the uninitiated it appears to be a simple anthology of Vedic texts: passages taken from the hymns of the *Veda* and narrative or speculative episodes translated from the *Brahmanas* and the *Upanishads*. But this choice of texts is

rather precious in itself because, thanks to the representative extracts, it gives one an over-all view of a movement of thought which doubtless lasted almost a thousand years and left an indelible imprint upon the Indian mentality. These texts, which are frequently difficult to grasp, benefit here from a new exegesis, supported by a brief but precise commentary that is all the more acceptable because it emanates from an experienced Indianist.

However, Ruben offers us not a review of commonly accepted ideas but rather a radical revision of these views. The *Upanishads*, which are supposed to be the very foundation of the idealist philosophy that India has reflected for so long, are, in the opinion of Ruben, proof, at least in part, of a materialist attitude: matter is conceived as a living principle, emanating from one's self and from which, in turn, all beings, all external objects, emanate. What the author calls the "beginnings of philosophy in India," far from being, as one commonly assumes, speculation devoted to the search for the divine principle, subsuming the presence of personal gods and their mythological cycles, proves to be a conflict between this rising materialism and the idealism inherent in traditional thought. The principal champion of this materialism is Ouddalaka, the enemy in the *Upanishads* of the idealist, Yajñavalkya: therefore, from this Indian Thales dates the true point of departure of philosophy in India.

Ruben maintains these extreme views in regard to the social level by stating that there was a transition from a clan economy to a national structure.

This doubtless will give rise to more than one reaction. In any case, one can transpose these views into literary reality only by relegating to the background the mass of "idealist" data, the quest for a spiritual principle, the *atman-Brahman* equation. One must also set aside almost all that the Vedic hymns might have concealed, and this is considerable so far as speculative themes are concerned. Indeed, Ruben cites practically nothing of the *Atharva-Veda*, and he mentions but a few passages from the *Rig-Veda*; these express either a hedonistic attitude or the beginnings of a skeptical trend. Of the *Brahmanas*—that arsenal of ritualistic speculation—he mainly retains explanations of a mechanistic nature, "atheistic" cosmology, passages that anticipate the *Upanishads*. Finally, in the last group, the citations give evidence of Ouddalaka's intervention and of the great controversy about Yajñavalkya. One might consider this a prejudiced point of view; actually, it probably is. At any rate, it has the advantage of emphasizing a whole domain of data that usually are not studied. Indianists are often concerned with adhering to massive realities, following the royal road that leads from the *Veda* to systems and sects. It is good at times to reconsider India as it might have been had it not been submerged by the afflux of traditional beliefs. Under this blanket, it is true, a freer philosophy could have attempted to forge its way. It is to Ruben's credit that he ventured to go back as far as the *Upanishads* in seeking the origins of Indian materialism, thus establishing a rather striking parallelism with the contemporary philosophy of the pre-Socratics.

Notes on the Contributors

In "The King, the Traitor, and the Cross," E. MICHAEL MENDELSON, an Englishman born in Paris in 1928, analyzes the ritual of Holy Wednesday among the Highland Maya Indians of Guatemala. Mr. Mendelson has studied at King's College (Cambridge), in Paris, at the London School of Economics, and at the University of Chicago and has spent a year in Guatemala in field work which resulted in his Doctor's thesis, "Religion and World-View in a Guatemalan Village." He is now engaged in a study of the sociology of contemporary Buddhism in Southeast Asia and has contributed articles and book reviews to numerous journals.

ERIC DARDEL, who contributed "The Mythic" to *Diogenes* No. 7, continues his concern with the evaluation of history and historical research. Born at Montargis in 1899, he studied at the University of Paris and became director, in 1945, of the coeducational Lycée J. J. Rousseau at Montmorency. He has

published *Les Pêches maritime* (Paris: Presses Universitaires de France, 1946); *L'Histoire, science du concret* (1946); and *L'Homme et la terre* (1952), with the same press.

Founder of the Institut de Science Économique Appliquée, FRANÇOIS PERROUX has been its director since its beginnings in 1944. Born at Lyon in 1903, he has traveled and lectured in many countries, his interests extending from the field of economics to that of the social and political sciences. His many published works include: *Le Problème du profit* (Paris: Giard, 1926); *Des mythes hitlériens à l'Europe allemande* (Paris: Librairie Générale de Droit et de Jurisprudence, 1940); *La Pensée économique de Josef Schumpeter* (Paris: Dalloz, 1935); *Capitalisme et communauté de travail* (Paris: Sirey, 1939); *Autarchie et expansion* (Paris: Librairie de Médecis, 1940); *La Valeur* (Paris: Presses Universitaires de France, 1943); *La Plan Marshall ou l'Europe nécessaire au monde*

(Paris: Librairie de Médecis, 1948); *Les Comptes de la notion* (Paris: Presses Universitaires de France, 1949); and *Europe sans rivages* (Paris: Presses Universitaires de France, 1954). M. Perroux wrote on "The Gift: Its Economic Meaning in Contemporary Capitalism" for *Diogenes*, No. 6.

MARIA UNGUREANU, educated at the University of Bucharest and at the Sorbonne, was appointed in 1953 to the Centre National de la Recherche Scientifique (modern-history section) as a research scholar under the direction of Lucien Febvre. In 1955 she published, with the co-operation of the CNRS and the Commission des Monuments Historiques du Pas de Calais, a study on *Bourgeoisie Naissante: La Société et la littérature bourgeoise d'Arras au XII et XIII siècles*. For the last two years she has been working in the fields of sociology and social psychology.

In "The Seven Offices," KENNETH BURKE, author of books on literary criticism, communication, motivation, and cultural problems generally, proposes a seven-fold scheme for defining and classifying motivation. Mr. Burke, who teaches the theory of language at Bennington College in Vermont, holds a fellowship this year with the Center for Advanced Study in the Behavioral Sciences in Stanford, California, where he is working on "A Symbolic of Motives." He has published: *Permanence and Change* (New York: New Republic, 1935); *Attitudes toward History* (New York: New Republic, 1937); *The Philosophy of Literary Form* (Baton Rouge: Louisiana State University Press, 1941); *A Grammar of Motives* (New York:

Prentice-Hall, Inc., 1945); *A Rhetoric of Motives* (New York: Prentice-Hall, Inc., 1950); and *Counter-Statement* (Los Altos, Calif.: Hermes, 1953), as well as a collection of short stories, a novel, and a book of poems.

ADRIENNE R. WEILL, student of science at the Sorbonne, worked in the laboratory of Marie Curie in 1923 and at the Cavendish Laboratory, under the direction of Sir Lawrence Bragg, in 1940. She is a specialist in the physics of metals, is research engineer at the Marine Nationale, and is scientific adviser to the Laboratoire du Musée du Louvre. Besides many notes and technical articles on the fundamental modes of crystallization and deformation of metals and alloys which have appeared in the learned journals of her field, she has published articles of a more general nature in reviews such as *Iron and Steel*, *L'Age nucléaire*, and *La Revue philosophique*. Daughter of Léon Brunschvicg, who taught at the Sorbonne from 1909 to 1940, she is also engaged in the publication of new editions of his works.

HENRI LABOURET, Honorary Governor of the Colonies, is professor emeritus of the Écoles Nationales de la France d'Outre-Mer et des Langues Orientales Vivantes, of L'École Libre des Sciences Politiques, and of L'Institut d'Ethnologie. He has published *Les Tribus du rameau Lobi* (Paris: Institut d'Ethnologie, 1931); *Le Cameroun* (Paris: Paul Hartmann, 1937); *Colonisation, colonialisme, décolonisation* (Paris: Larose, 1952); and *Histoire des noirs d'Afrique* (Paris: Presses Universitaires de France, 1946).

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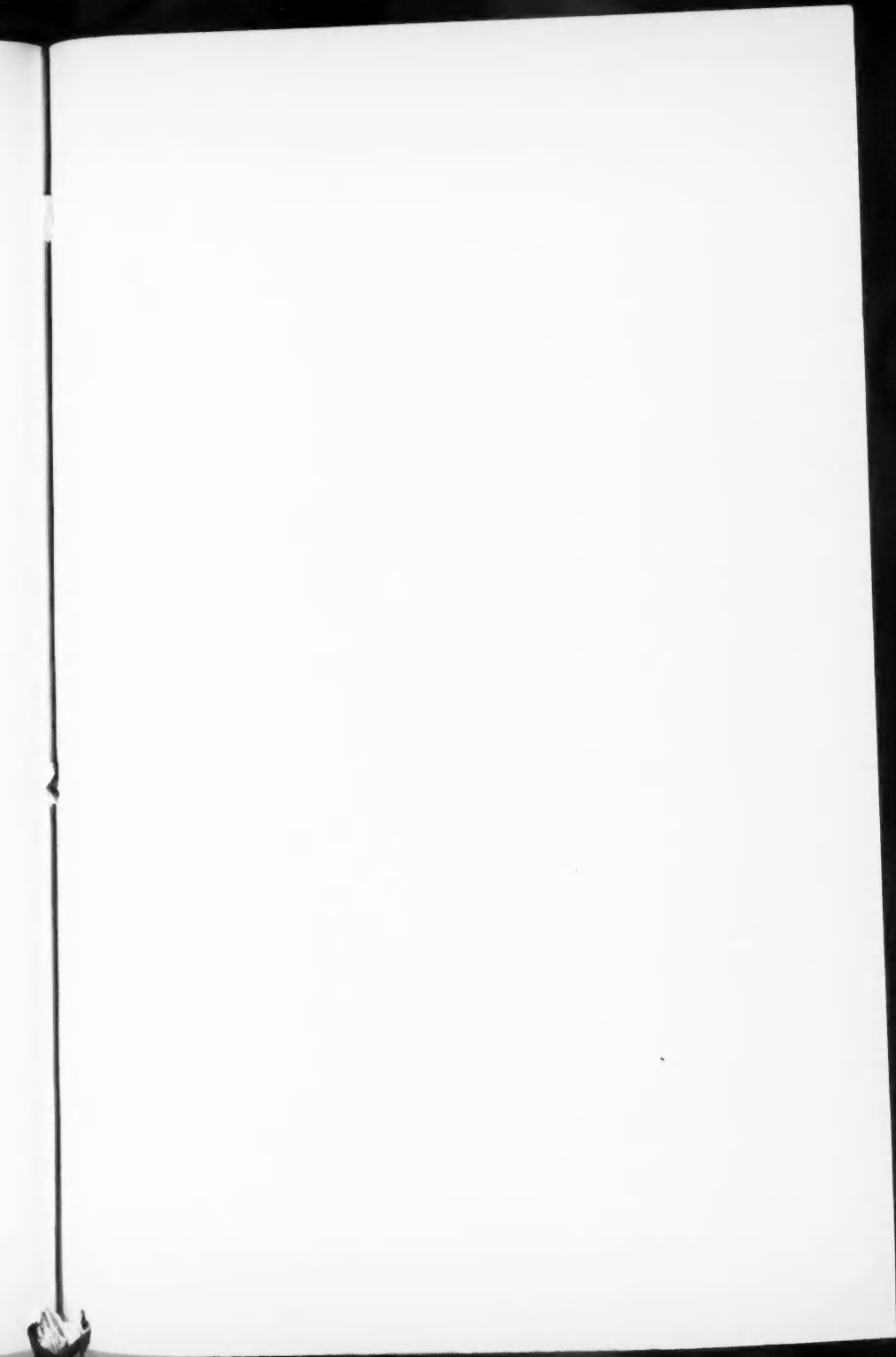
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